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City of Salford.

ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR

1936.

BY

H. OSBORNE,

MEDICAL OFFICER OF HEALTH.

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Members of the Health Committee, 1936-37.

Alderman J. A. Webb, J.P., M.B.E., *Chairman.*

Councillor H. Kitchin, *Deputy-Chairman.*

Councillor Ashcroft, J.P. (*Mayor*).

Alderman Sands, J.P. (*Deputy-Mayor*).

,, Desquesnes.

,, Kearns.

,, Webb, L.

Councillor Binns.

,, Crabtree.

Councillor Cuddeford, J.P.

,, Cuttiford, J.P.

,, Fearnehough.

,, Greenwood (Walter).

,, Haynes.

,, Hurst.

,, Merrick.

,, Moulson.

,, Shlosberg.

Also co-opted for Housing Purposes :—

Mrs. Southern..... Representing the Pendleton Co-operative Industrial Society Limited.

Mrs. Richards..... Representing the Manchester and Salford Women Citizens' Association.

The following members were co-opted upon the undermentioned Sub-Committees, viz. :—

Tuberculosis Sub-Committee—Mr. W. Brice and Mr. A. Fishwick representing the Salford Insurance Committee.

Maternity and Child Welfare Sub-Committee—Mrs. Wade, representing the Ladies' Public Health Society; Mrs. C. U. Frankenburg, representing the Manchester and Salford Women Citizens' Association; and Mrs. Harper, representing the Women's Guild of the Pendleton Co-operative Industrial Society Limited.

STAFF.
Public Health Department.

Medical Officer of Health..... Administrative Tuberculosis Officer	H. OSBORNE, M.D., M.R.C.S., D.P.H., etc.
Honorary Consulting Medical Officer.	C. H. TATTERSALL, M.R.C.S., L.R.C.P., D.P.H.
Clinical Tuberculosis Officers.....	E. N. RAMSBOTTOM, M.A., B.Sc., M.D. (Lond.), D.P.H., etc. J. V. WHITAKER, M.B.,Ch.B., D.T.M. & H., D.P.H.
Maternity and Child Welfare Medical Officers.....	M. SPROUL, M.B., Ch.B., D.P.H. K. D. ARNSBY, M.B., B.S.—to 31st August, 1936. J. C. KING, M.B., Ch.B., D.P.H.
Consulting Obstetrician.....	W. R. ADDIS, M.C., M.B., Ch.B.
City Pathologist.....	G. J. CRAWFORD, B.Sc., M.D., M.R.C.P, (Lond.), D.P.H.
Assistant Pathologist.....	L. STENT, M.D., M.R.C.S., L.R.C.P.
Venereal Diseases Medical Officer.....	E. TYTLER BURKE, D.S.O., M.B., Ch.B.—to 31st March, 1936. R. MARINKOVITCH, M.D.—from 6th May, 1936.
Asst. Venereal Diseases Medical Officer	F. M. BLADES, M.B., Ch.B. R. C. WEBSTER, B.Sc., M.D.—from 1st June, 1936.

HOPE HOSPITAL.

WHOLE-TIME STAFF.

Medical Superintendent.....	J. DUDGEON GILES, O.B.E., M.D. (Edin.).
Deputy Medical Superintendent.....	GEORGE BROWN, M.B., Ch.B., F.R.C.S. (Edin.).
Physician.....	WILLIAM MACKAY, M.D., F.R.F.P.S. (Glas.).
Obstetric Officer	W. FRAME FLINT, M.B., Ch.B. (Glas.)—to 31st May, 1936. S. HENDERSON, M.B., Ch.B., M.R.C.S., L.R.C.P., M.C.O.G., M.M.S.A.—from 1st June, 1936.
Assistant Medical Officers.....	FIVE.

VISITING (PART-TIME) STAFF.

General Physician.....	G. J. LANGLEY, M.D., F.R.C.P. (Lond.).
Physician for Diseases of Children.....	CATHERINE CHISHOLM, C.B.E., B.A., M.D. (Manch.).

HOPE HOSPITAL—Visiting (Part-time) Staff—*Continued.*

Obstetrician and Gynæcologist.....	J. W. A. Hunter, M.D. (Edin.), M.C.O.G. —to 8th February, 1936.
	T. F. Todd, L.R.C.P. (Lond.), M.B., B.S. (Lond.), F.R.C.S., Eng., M.C.O.G., M.S. (Lond.)—from 10th February, 1936.
Orthopædic Surgeon.....	S. M. Milner, M.A., M.B., Ch.B. (Cantab and Manch.), M.R.C.S., L.R.C.P. (Lond.), F.R.C.S. Eng.
Surgeons (Jointly) for Diseases of the Ear, Nose and Throat.	A. A. Smalley, M.C., M.B., Ch.B. (Manch.), M.R.C.S., L.R.C.P. (Lond.).
	L. D. Mercer, M.B., Ch.M. (Sydney), F.R.C.S. (Edin.).
General Surgeon.....	H. T. Simmons, B.Sc., M.B., Ch.B., Ch.M. (Manch.), L.R.C.P., M.R.C.S. (Lond.). F.R.C.S. Eng.
Anæsthetist, Radiologist and Lecturer	J. Ghosh, F.R.C.S.I., D.P.H.

LADYWELL SANATORIUM.

Medical Superintendent.....	W. Edge, M.R.C.S., L.R.C.P., D.P.H.
Assistant Resident Medical Officer.... .	W. P. Cargill, M.R.C.S., L.R.C.P.
Junior Resident Medical Officer.....	G. N. M. Wishart, M.R.C.S., L.R.C.P.
Visiting Aural Surgeon	W. B. McKelvie, M.D., F.R.C.S. (Edin.).

NAB TOP SANATORIUM.

Medical Superintendent.....	H. M. Fleming, B.A., M.D., D.P.H.

Veterinary Inspector.....	A. Alexander, M.R.C.V.S., D.V.S.M.—to 31st July, 1936.
Public Analyst.....	H. E. Monk, B.Sc., F.I.C.—to 31st March, 1936.
	G. H. Walker, Ph.D., B.Sc., F.I.C.,—from 4th May, 1936.
Chief Administrative Assistant.....	E. Wood.
Chief Sanitary Inspector.....	J. P. Cargill, M.R.S.I.

To the Health Committee of the City of Salford.

Madam and Gentlemen,

I have the honour to present my report upon the health of the City and the work of the Public Health Department during 1936.

Death Rate.

The death rate for the City was 14.0 per thousand of the population. In the very young, measles, whooping cough, diarrhœa and enteritis took an increased toll, while in persons over 65 years of age the increased deaths were due largely to heart diseases allied with bronchitis and diseases of the circulatory system, such as arterio sclerosis.

Birth Rate.

The slight increase in the birth rate to 15.0 per thousand of the population, which I recorded in respect of 1935, was maintained during 1936. The actual number of live births, however, was 67 less than in 1935, and the maintaining of the rate at its former level was due to a decrease in the estimated population, on which the calculation of the rate was based, from 210,000 to 206,000.

Maternity and Child Welfare.

The Infantile mortality rate (*i.e.*, the number of deaths under one year of age per thousand births) for 1936 was 90, a figure which compares very unfavourably with that of 78 for 1935. As I feel sure the Committee will realise it is useless to hope to standardise a rate of this kind. The figures upon which the calculations are based are comparatively small, and serious outbreaks of infectious disease, although not causing a large number of fatalities, may affect the rate very considerably. During 1936 measles and diarrhœa were particularly dangerous to the child life of the City.

In spite of this temporary set-back, a glance at Table M 5, appearing on pages 19 and 20, will reveal the steady progress in the protection of child life which has been and is being made.

As the alterations to the Maternity Block at Hope Hospital were completed early in 1936 it was found possible to close the Municipal Maternity Home and Babies' Hospital in April, and thus to concentrate all the institutional maternity work and treatment of children (apart from ordinary infectious diseases and tuberculosis) controlled by the Corporation, in one Institution.

Hope Hospital.

I am glad to be able to report the completion of the equipping of the wards in the new extensions, and the adaptation of the Maternity Block at Hope Hospital during 1936. The modernising of the Hospital, combined with the Council's decision to appropriate it under the Public Health Acts, has been responsible, in my opinion, to a great extent, for its increased use and appreciation by the general public of Salford. It is to be regretted that it has not yet been found possible to improve the accommodation for mental cases, but in dealing with this problem the Corporation are largely dependent upon the decision of the Lancashire Mental Hospitals Board, which authority, it is understood, is faced with a serious shortage of accommodation.

Handling of Food in Shops.

On page 139 of this report I have called attention to the lack of care frequently displayed by shopkeepers in dealing with food in tended for human consumption. The moistening of fingers with the tongue before opening paper bags into which cakes are to be placed, the repeated handling of unwrapped bread, the sweeping of floors in rooms containing exposed food-stuffs, are all examples of carelessness in dealing with food. There have been, of course, great improvements in this connection in recent years. The wrapping of sweets, bread, and many other commodities is much more common to-day than in former years, but there is still room for considerable improvement. It is to the enlightenment and sense of decency of the individual producer and shopkeeper, rather than to laws and bye-laws, that we must look for the improvements which have still to be made. Many of the errors in this connection committed at the present time are due more to thoughtlessness than to deliberate ill-intent.

Immunisation against Diphtheria.

A report upon this subject appears on pages 115 and 116 of this report. The special effort, involving the employment of a full-time Medical Officer for one year, terminated in July, 1936. While, taken as a whole, the result of the year's work was excellent, it became apparent towards the end of the year that volunteers would not be forthcoming in sufficient numbers to justify the continuance of the scheme. It is felt by the writer that at the present juncture the best plan is to concentrate on direct personal propaganda by Health Visitors among parents of infants and children under five years of age. If circumstances arising in the future suggest the practicability of successfully taking other measures, proposals will be submitted to the Committee.

Re-Housing.

It is satisfactory to be able to record an improvement in 1936 in the rate of progress at which re-housing is being carried out. One hundred and twenty-seven families from the Ordsall Clearance Area have been transferred to the

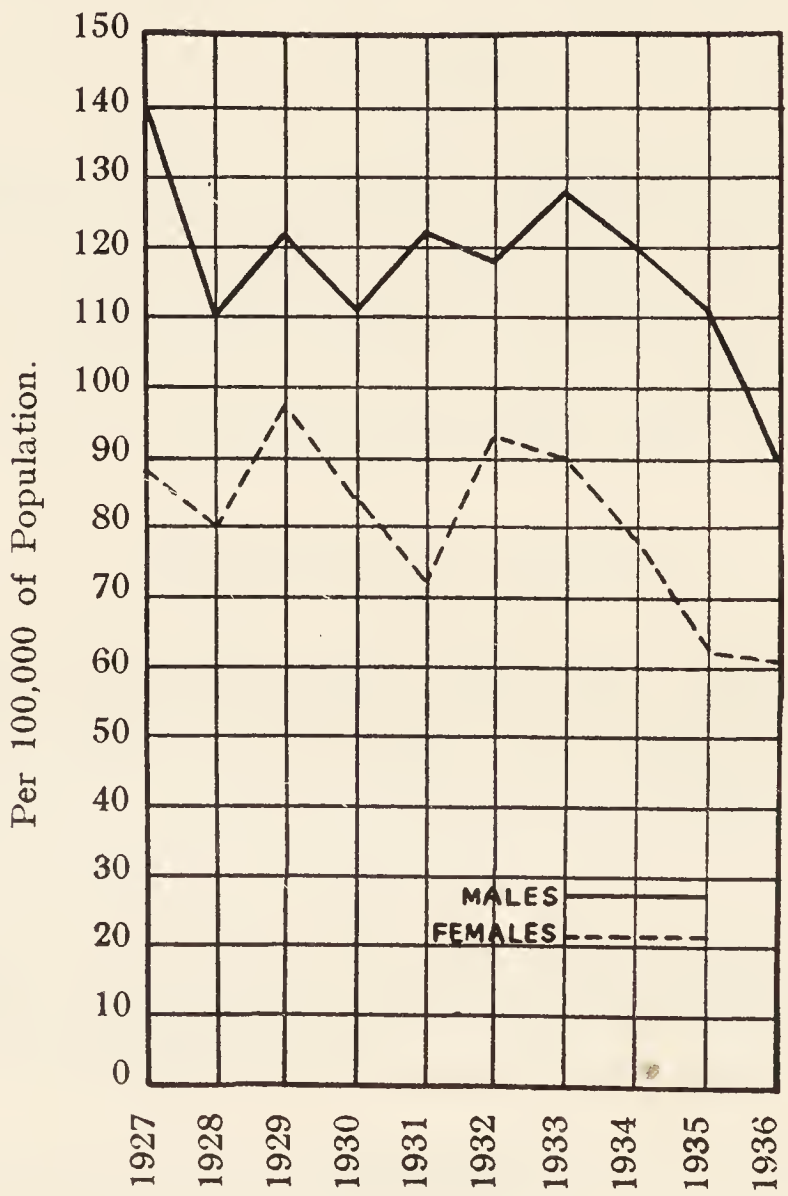
Langworthy Estate in Eccles New Road, and rapid progress is being made towards the completion of the remainder of the Estate. In addition, 25 Clearance Orders, involving 228 dwellinghouses, were made during 1936. Details of the work accomplished appear on page 50 of this report.

Tuberculosis.

In my last Annual Report I referred to the advance made since 1912 in the war against tuberculosis. In order to illustrate the position in Salford as clearly as possible, I append graphs showing (*a*) the fall in the number of notified cases during the past ten years, and (*b*) the fall in the death rate during the past twenty-five years.

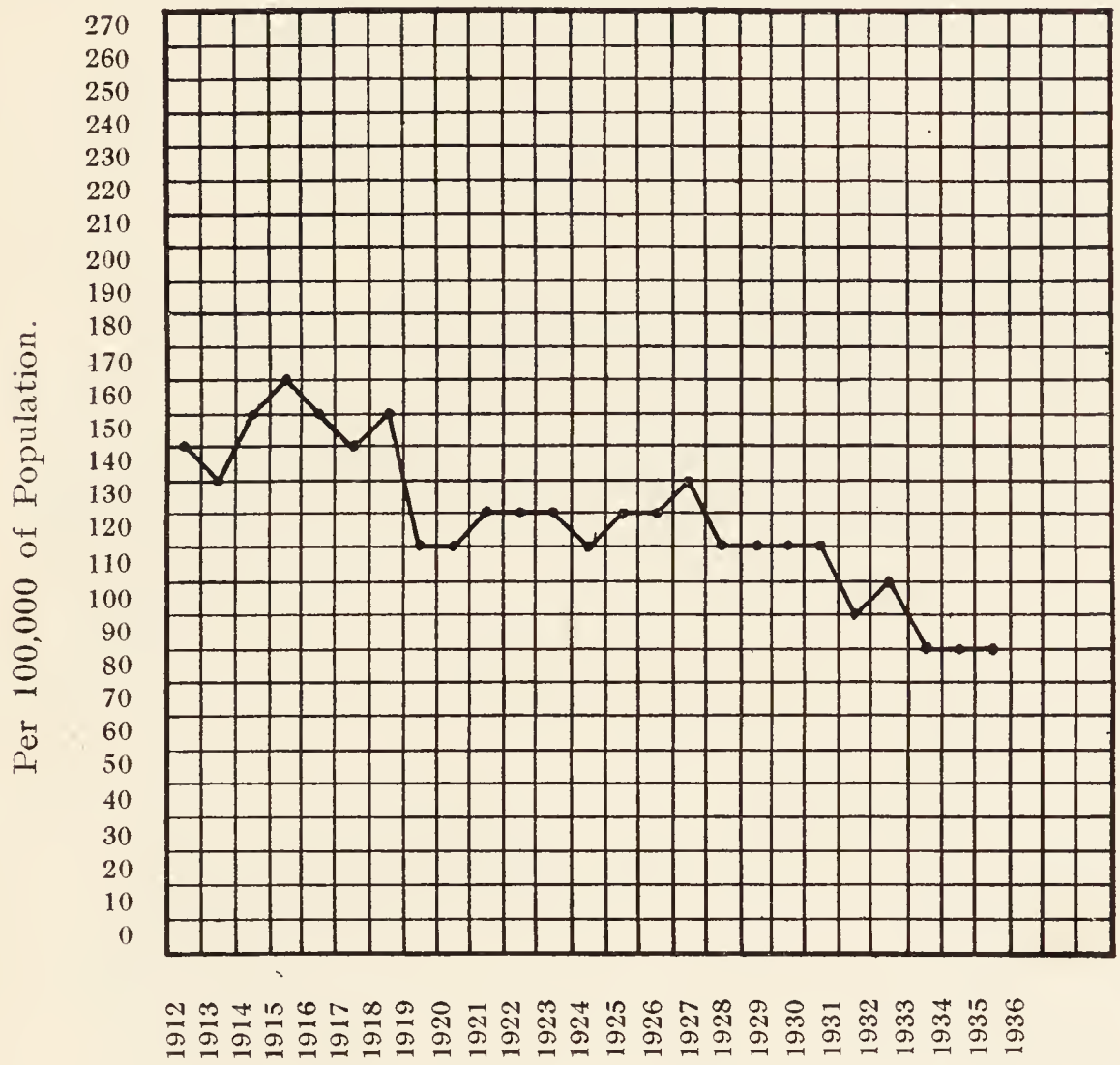
PULMONARY TUBERCULOSIS.

Graph showing Fall in Notified Cases during Past Ten Years.



PULMONARY TUBERCULOSIS.

GRAPH SHOWING FALL IN DEATH RATE DURING PAST TWENTY-FIVE YEARS.



Conclusion.

In concluding this introduction to my Report, I wish to offer my warmest thanks to the Committee for their constant assistance and encouragement in administering the ever-growing and by no means light responsibilities of a Public Health Department. Without that support, which is always so readily forthcoming, the difficulties which have to be faced by a Medical Officer of Health would be magnified immeasurably.

I am grateful, too, for the loyal and active co-operation of the Staff of the Department.

I have the honour to be, Madam and Gentlemen,

Your obedient servant,

H. OSBORNE,

Medical Officer of Health.

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SECTION I.

Mortality Statistics.

STATISTICAL SUMMARY, 1936.

Area.—The City of Salford has a total area of 5,202 acres.

Population.—(Registrar-General's Estimate at Mid-year, 1936)		206,000
,, (Census, 1931)		223,438
Density.—The Mean Density of the City is equal to 39.6 persons per acre.		
Live Births — **Legitimate** 1,540 **Males,** 1,420 **Females**		2,960
Illegitimate 66 ,, 63 ,,		129
	Total	3,089
Annual Rate of Births per 1,000 of the Population		15.0
Still Births — Males 91, Females 60 — **Total**		151
Annual Rate of Still Births per 1,000 Total Births		46.6
Deaths — Males 1,543, Females 1,350		2,893
Annual Rate of Mortality per 1,000 of the Population		14.0
Percentage of total deaths occurring in Public Institutions		56.8 per cent.

Deaths from Puerperal Causes :—	Deaths.	Rate per 1,000 Total Births.
Puerperal Sepsis	5	1.5
Other Puerperal Causes	12	3.7
Total	17	5.2

Death-rate of Infants under one year of age per 1,000 live births :—	
Legitimate, 89. Illegitimate, 109. Total	90
Deaths from Measles (all ages)	49
,, ,, **Whooping Cough** (all ages)	22
,, ,, **Diarrhoea** (under 2 years of age)	43

TABLE M. 1.

DEATHS IN WARDS FOR THE YEAR 1936.

CAUSES OF DEATH.	AT ALL AGES.																	
	City.	Albert Park.	Charlestown.	Claremont.	Crescent.	Docks.	Kersal.	Langworthy.	Mandley Park.	Ordsall Park.	Regent.	St. Matthias'.	St. Paul's.	St. Thomas'.	Seedley.	Trinity.	Weaste.
Enteric Fever	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Small-pox	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Measles	49	1	3	1	3	4	1	8	2	2	6	4	4	1	....	8	1
Scarlet Fever	7	....	....	....	1	....	1	....	....	1	....	....	....	1	2	....	1
Whooping Cough	22	2	3	....	3	1	....	....	1	2	....	2	1	5	....	2	....
Diphtheria and Croup	30	....	6	1	3	1	2	1	2	....	1	4	2	5	1	1	....
Influenza	25	1	3	3	....	1	....	....	3	....	1	3	3	2	....	4	1
Erysipelas	2	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....
Encephalitis Lethargica	6	1	2	2	....	....	....	....	....	1	....	....	....	....	....	....	....
Tuberculosis of Respiratory System	202	16	17	3	15	12	5	17	12	9	16	16	20	12	4	16	12
Tuberculous Meningitis	10	1	....	....	1	....	....	2	2	1	....	1	....	....	1	1	....
Other Tuberculous Diseases	19	1	1	1	3	1	1	1	1	....	2	2	....	1	1	2	1
Syphilis	4	....	....	....	....	1	....	....	....	1	....	....	1	....	....	1	....
General Paralysis of the Insane, etc	9	1	1	....	3	1	....	1	1	1	....	....	....	....	....	....	....
Cancer (Malignant Disease)	344	37	21	17	27	13	20	20	29	16	23	20	16	21	19	18	27
Diabetes	30	6	2	5	4	1	....	4	....	2	....	....	....	2	1	1	2
Rheumatic Fever	21	....	4	4	1	....	1	1	....	2	....	1	1	2	1	....	3
Meningitis	9	1	1	....	....	....	....	....	....	1	2	1	....	1	....	1	1
Cerebro-Spinal Fever	6	1	1	....	....	1	....	....	....	1	....	....	....	2	....	....	....
Cerebral Hæmorrhage, etc	113	12	11	8	10	5	4	5	6	3	8	13	3	4	6	7	8
Heart Disease	633	57	46	23	56	42	35	24	34	34	56	44	28	44	18	49	43
Aneurysm	6	....	1	....	....	....	....	....	....	1	3	....	1	....	....	....	....
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Other Circulatory Diseases	230	21	20	10	15	11	14	17	13	5	20	16	14	19	13	12	10
Bronchitis	181	12	12	3	9	9	9	6	12	10	13	25	16	3	9	16	7
Pneumonia (all forms)	228	13	21	8	26	10	11	10	13	15	15	19	23	18	9	14	3
Other Respiratory Diseases	26	2	....	2	1	1	1	....	3	....	3	6	....	....	3	3	1
Diarrhœa and Enteritis	44	5	2	1	5	2	....	1	....	5	4	5	5	8	....	1	....
Peptic Ulcer	18	3	2	....	....	....	1	2	2	1	....	1	....	....	2	3	1
Appendicitis	16	1	1	2	1	1	2	1	....	....	2	1	2	....	....	....	2
Cirrhosis of Liver	6	1	....	....	....	1	....	....	....	....	....	1	1	1	....	1	....
Other Diseases of Liver, etc	12	....	2	....	....	....	1	....	2	....	2	....	....	1	1	1	2
Other Digestive Diseases	45	1	2	2	1	3	4	3	6	3	6	4	3	2	3	2	....
Nephritis, Acute and Chronic	65	5	2	3	8	5	6	4	5	2	5	2	4	4	7	1	2
Puerperal Sepsis	5	1	....	....	....	1	....	....	....	....	1	2	....	....	....	....	....
Other puerperal causes	12	1	....	2	1	2	....	....	....	2	1	....	1	1	....	....	1
Congenital Debility and Malformation	47	6	3	1	5	3	1	1	2	4	6	2	3	1	1	4	4
Premature Birth	63	6	6	....	6	6	2	6	2	4	5	6	1	3	2	2	6
Senility	103	5	3	10	11	7	6	5	5	6	6	7	7	5	3	10	7
Suicide	18	2	3	....	....	....	3	....	1	3	....	2	....	1	1	1	1
Other Violence	72	7	5	3	7	5	5	4	3	5	4	4	7	....	1	9	3
Other Defined Diseases	149	13	8	9	6	12	6	6	13	6	9	12	14	11	4	12	8
Causes Ill-defined or Unknown	7	1	2	....	2	1	1	....	....	....	....	....	....	....	....	....	....
Totals	**2893**	**244**	**217**	**124**	**233**	**164**	**143**	**151**	**175**	**149**	**220**	**226**	**181**	**191**	**113**	**204**	**158**

TABLE M. 2.

CAUSES OF, AND AGES AT, DEATH DURING THE YEAR, 1936.

CAUSES OF DEATH.	NET DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.								
	All Ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.
ALL CAUSES—Certified	2882	277	60	54	74	118	279	865	1155
Uncertified	11	....	....	....	....	....	2	4	5
Enteric Fever	....	....	....	....	....	....	....	....	....
Small-pox	....	....	....	....	....	....	....	....	....
Measles	49	12	20	9	8	....	....	....	....
Scarlet Fever	7	....	1	1	4	1	....	....	....
Whooping Cough	22	11	5	5	....	1	....	....	....
Diphtheria and Croup	30	1	1	12	16	....	....	....	....
Influenza	25	....	....	1	1	2	5	11	5
Erysipelas	2	....	....	....	....	....	....	....	2
Encephalitis Lethargica	6	....	....	....	....	....	1	5	....
Tuberculosis of Respiratory System	202	....	1	....	5	44	76	68	8
Tuberculous Meningitis	10	3	....	2	3	....	1	1	....
Other Tuberculous Diseases	19	3	....	....	5	1	4	5	1
Syphilis	4	....	....	....	....	1	....	3	....
General Paralysis of the Insane, Tabes Dorsalis	9	....	....	....	....	....	3	6	....
Cancer, Malignant disease	344	....	....	....	....	....	28	162	154
Diabetes	30	....	....	....	....	2	2	7	19
Rheumatic Fever	21	....	....	....	6	4	6	3	2
Meningitis	9	....	4	2	2	....	....	1	....
Cerebro-Spinal Fever	6	1	1	....	2	1	1	....	....
Cerebral Hæmorrhage, etc	113	4	....	1	....	....	3	29	76
Heart Disease	633	1	....	....	3	12	40	221	356
Aneurysm	6	....	....	....	....	1	1	3	1
Other Circulatory Diseases	230	1	....	....	....	....	4	56	169
Bronchitis	181	11	2	1	....	5	10	50	102
Pneumonia (all forms)	228	51	19	14	4	11	25	74	30
Other Respiratory Diseases	26	1	....	....	....	1	4	11	9
Diarrhœa and Enteritis	44	40	3	....	....	....	....	1	....
Peptic Ulcer	18	....	....	....	....	1	2	14	1
Appendicitis	16	....	....	1	1	4	3	4	3
Cirrhosis of Liver	6	....	....	....	....	....	....	5	1
Other diseases of Liver, etc	12	1	....	....	....	....	1	4	6
Other Digestive Diseases	45	9	....	1	....	2	3	13	17
Nephritis Acute and Chronic	65	....	....	....	1	2	9	30	23
Puerperal Sepsis	5	....	....	....	....	1	4	....	....
Other Puerperal causes	12	....	....	....	....	3	9	....	....
Congenital Debility and Malformation	47	47	....	....	....	....	....	....	....
Premature Birth	63	63	....	....	....	....	....	....	....
Senility	103	....	....	....	....	....	....	1	102
Suicide	18	....	....	....	....	....	3	10	5
Other Violence	72	3	2	1	8	7	17	18	16
Other Defined Diseases	149	13	1	3	5	11	17	51	48
Diseases ill-defined or unknown	7	1	....	....	....	....	....	2	4
Totals	2893	277	60	54	74	118	281	869	1160

TABLE M. 3.

BIRTHS IN THE CITY OF SALFORD AND IN ITS WARDS, DISTINGUISHING DEATHS OF LEGITIMATE AND ILLEGITIMATE INFANTS UNDER ONE YEAR OLD.
FOR THE YEAR, 1936.

Ward.	Births.		Percentage of Illegit. Births to Total Births.	Deaths under One Year.		Proportion of Deaths under One Year per 1,000 Births.		
	Total.	Illegit.		Total.	Illegit.	Total.	Legit.	Illegit.
Albert Park	237	11	4.6	23	....	97	102	....
Charlestown	252	9	3.6	18	....	71	74	....
Claremont	116	3	2.6	3	....	26	27	....
Crescent	282	15	5.3	28	1	99	101	67
Docks	161	14	8.7	15	....	93	102	....
Kersal	137	8	5.8	10	2	73	62	250
Langworthy	171	8	4.7	14	1	82	80	125
Mandley Park.	221	11	5.0	11	2	50	43	182
Ordsall Park	192	6	3.1	22	2	115	108	333
Regent	232	7	3.0	26	....	112	116	....
St. Matthias'	223	6	2.7	25	....	112	115	....
St. Paul's	173	3	1.7	18	....	104	106	....
St. Thomas'	208	7	3.4	27	4	130	114	571
Seedley	106	3	2.8	8	1	75	68	333
Trinity	225	15	6.7	17	1	76	76	67
Weaste	153	3	2.0	12	....	78	80	....
Totals	**3,089**	**129**	**4.2**	**277**	**14**	**90**	**89**	**109**
CORRESPONDING DATA FOR THE CITY FOR THE TEN YEARS 1926-1935.								
City	**37,068**	**1,391**	**3.8**	**3,543**	**219**	**96**	**93**	**157**

TABLE M. 4.

SHOWING THE BIRTHS IN THE CITY OF SALFORD, DEATHS OF LEGITIMATE AND ILLEGITIMATE INFANTS UNDER ONE YEAR OLD AND THE PROPORTION OF DEATHS UNDER ONE YEAR OF AGE PER 1,000 BIRTHS DURING THE YEARS 1915 TO 1936.

Year.	Births.			Percentage of Illegitimate Births to Total Births.	Deaths under One Year.			Proportion of Deaths under One Year per 1,000 Births.		
	Total.	Legit.	Illegit.		Total.	Legit.	Illegit.	Total.	Legit.	Illegit.
1915	5455	5257	198	3.6	733	692	41	134	132	207
1916	5091	4894	197	3.9	587	544	43	115	112	218
1917	4452	4234	218	4.9	551	498	53	124	118	243
1918	4282	4043	239	5.5	478	436	42	111	107	175
1919	4435	4179	256	5.8	501	466	35	113	111	137
1920	6441	6170	271	4.2	630	584	46	97	94	169
1921	5993	5702	291	4.8	641	585	56	107	102	192
1922	5416	5169	247	4.5	599	564	35	110	109	141
1923	5047	4841	206	4.1	493	458	35	98	95	170
1924	4745	4569	176	3.7	579	533	46	122	117	261
1925	4597	4398	199	4.3	482	452	30	105	103	151
1926	4511	4349	162	3.6	464	434	30	103	100	185
1927	4301	4130	171	4.0	348	328	20	81	79	117
1928	4073	3915	158	3.9	431	408	23	106	104	146
1929	3903	3761	142	3.6	489	460	29	125	122	204
1930	3787	3640	147	3.9	323	290	33	86	80	224
1931	3479	3357	122	3.5	351	326	25	101	97	205
1932	3401	3261	140	4.1	336	321	15	99	98	107
1933	3316	3195	121	3.6	264	250	14	80	78	116
1934	3141	3010	131	4.2	292	277	15	93	92	115
1935	3156	3059	97	3.1	245	230	15	78	75	155
1936	3089	2960	129	4.2	277	263	14	90	89	109

TABLE M. 5.

SHOWING THE BIRTH-RATES, ALSO RATES OF MORTALITY FROM ALL CAUSES, FROM THE SEVEN PRINCIPAL ZYMOTIC DISEASES, AND FROM PHTHISIS, CANCER, NERVOUS DISEASES, HEART DISEASES, BRONCHITIS, PNEUMONIA AND THE INFANT MORTALITY RATE, DURING THE YEARS 1878 TO 1936.

Years.	Population.	Rates per 1,000 Population from									Deaths under One Year to 1,000 Births.	Marriage Rate.
		Births.	Deaths, All Causes.	Seven Principal Zymotic Diseases.	Phthisis.	Cancer.	Nervous Diseases.	Heart Diseases.	Bronchitis.	Pneumonia.		
1878	160,277	44.7	27.1	5.4	2.7	0.5	3.5	1.1	3.6	1.8	185	17.9
1879* ..	165,899	43.0	26.7	4.2	2.9	0.4	3.7	1.2	4.3	1.8	170	15.2
1880	171,727	41.4	27.9	7.4	2.7	0.4	3.2	0.9	3.4	1.9	197	16.6
1881	177,760	38.8	22.5	3.0	2.5	0.5	3.1	1.1	3.6	1.6	163	16.4
1882	179,855	39.7	23.7	4.0	2.4	0.4	3.6	1.1	2.8	1.7	177	16.9
Average 5 years.		**41.5**	**25.6**	**4.8**	**2.6**	**0.4**	**3.4**	**1.1**	**3.5**	**1.8**	**178**	**16.6**
1883	181,951	37.3	23.6	3.4	2.7	0.4	3.1	1.2	3.0	1.7	171	16.1
1884* ..	184,047	38.8	24.4	4.4	2.6	0.5	2.9	1.1	2.8	1.7	184	16.1
1885	186,142	37.6	23.0	3.6	2.6	0.5	2.9	1.2	3.0	1.9	174	16.1
1886	188,238	38.5	24.8	4.1	2.6	0.5	2.8	1.3	3.3	1.8	197	15.3
1887	190,334	36.6	25.5	4.9	2.3	0.5	3.2	1.3	2.9	2.2	195	15.4
Average 5 years.		**37.8**	**24.3**	**4.1**	**2.6**	**0.5**	**3.0**	**1.2**	**3.0**	**1.9**	**184**	**15.8**
1888	192,429	37.1	24.8	3.9	2.3	0.5	3.0	1.1	3.0	2.1	184	15.2
1889	194,525	35.9	25.1	5.3	1.9	0.6	2.5	1.3	2.6	1.9	181	16.7
1890* ..	196,621	36.1	27 .7	4.4	2.2	0.5	2.0	1.3	3.4	3.8	198	17.5
1891	198,775	36.3	26.0	3.4	2.2	0.5	2.2	1.1	3.7	3.0	194	18.1
1892	200,833	35.8	24.6	4.6	1.9	0.6	2.0	1.2	2.6	2.9	186	16.7
Average 5 years.		**36.2**	**25.6**	**4.3**	**2.1**	**0.5**	**2.3**	**1.2**	**3.1**	**2.7**	**189**	**16.8**
1893	203,015	34.7	24.1	4.2	1.9	0.6	2.0	1.4	2.6	2.3	211	16.2
1894	205,220	34.3	21.1	3.3	1.8	0.6	2.0	1.1	1.9	2.3	174	17.1
1895	207,449	35.9	25.6	5.0	1.9	0.6	2.3	1.3	2.6	2.7	229	17.4
1896* ..	209,703	35.6	23.1	4.2	1.5	0.6	2.0	1.4	2.2	2.7	200	18.1
1897	211,981	35.2	23.9	5.6	1.8	0.6	2.1	1.3	2.4	2.1	219	18.6
Average 5 years.		**35.1**	**23.6**	**4.5**	**1.8**	**0.6**	**2.1**	**1.3**	**2.3**	**2.4**	**207**	**17.5**
1898	214,284	34.9	22.8	4.2	1.8	0.8	2.2	1.2	2.2	2.2	213	18.6
1899	216,612	34.1	23.9	4.4	1.8	0.6	2.3	1.4	2.5	2.7	211	18.7
1900	218,965	33.3	25.3	4.1	1.8	0.6	2.4	1.7	3.2	2.8	208	17.3
1901	221,212	29.2	21.7	4.2	1.8	0.7	1.9	1.5	2.3	1.9	205	17.9
1902* ..	222,233	34.0	19.3	2.7	1.7	0.7	2.0	1.5	2.2	2.1	157	18.4
Average 5 years.		**33.1**	**22.6**	**3.9**	**1.8**	**0.7**	**2.2**	**1.5**	**2.5**	**2.3**	**199**	**18.2**
1903	223,260	32.6	19.4	2.9	1.8	0.7	1.9	1.4	2.1	1.9	168	18.1
1904	224,299	32.4	21.4	4.4	2.0	0.6	1.8	1.7	2.2	1.9	193	21.5
1905	225,327	31.8	17.7	2.6	1.5	0.6	1.7	1.6	1.8	1.8	148	17.8
1906	226,367	31.2	19.1	3.3	1.7	0.8	1.7	1.5	2.0	1.8	162	18.6
1907	227,413	30.6	18.5	2.2	1.7	0.7	1.7	1.6	2.1	2.3	140	17.9
Average 5 years.		**31.7**	**19.2**	**3.1**	**1.7**	**0.7**	**1.8**	**1.6**	**2.0**	**1.9**	**162**	**18.8**

TABLE M. 5—*Continued.*

Years.	Population.	Rates per 1,000 Population from Births.	Deaths, All Causes.	Seven Principal Zymotic Diseases.	Phthisis.	Cancer.	Nervous Diseases.	Heart Diseases.	Bronchitis.	Pneumonia.	Deaths under One Year to 1,000 Births.	Marriage Rate.
1908* .	228,463	31.2	18.7	3.2	1.6	0.7	1.6	1.4	1.9	1.7	153	15.5
1909	229,519	29.5	19.0	2.5	1.5	0.8	1.7	1.4	2.3	2.3	141	15.6
1910	230,579	28.6	16.2	1.8	1.4	0.9	1.6	1.4	1.8	1.7	131	16.0
1911	231,641	27.4	17.4	2.5	1.6	0.9	1.3	1.3	1.8	1.8	154	....
1912	232,726	26.8	17.2	2.2	1.5	1.0	1.4	1.5	2.1	2.0	130	....
Average 5 years.		**28.7**	**17.7**	**2.4**	**1.5**	**0.9**	**1.5**	**1.4**	**2.0**	**1.9**	**142**	....
1913* ..	233,849	27.0	16.3	1.9	1.4	1.0	1.4	1.8	1.8	1.7	139	....
1914	234,975	26.9	17.1	1.9	1.6	1.1	1.4	1.8	1.8	1.8	126	....
1915	219,979†	24.8	19.1	2.8	1.7	1.1	1.4	1.6	2.3	1.9	134	....
1916	214,229†	21.8	15.8	1.2	1.6	1.0	1.3	1.3	1.9	1.5	115	....
1917	211,373†	18.9	16.0	1.6	1.5	1.2	1.4	1.3	2.0	1.4	124	....
Average 5 years.		**24.3**	**16.8**	**1.9**	**1.6**	**1.0**	**1.4**	**1.6**	**2.0**	**1.7**	**128**	....
1918	209,274†	18.3	18.0	1.0	1.6	1.1	1.2	1.1	2.3	1.9	111	....
1919	226,225†	18.8	15.8	0.8	1.2	1.1	1.1	1.1	2.4	1.5	113	....
1920	235,239	27.3	13.7	0.9	1.2	1.0	1.0	1.0	1.8	1.1	98	....
1921* ..	239,100	25.2	13.9	1.1	1.3	1.0	1.0	1.2	1.7	1.5	106	....
1922	240,700	22.1	14.6	1.3	1.3	1.1	0.9	1.1	1.9	1.7	110	....
Average 5 years.		**22.3**	**15.2**	**1.0**	**1.3**	**1.0**	**1.0**	**1.1**	**2.0**	**1.5**	**108**	....
1923	241,600	20.9	13.5	0.8	1.3	1.2	0.9	1.1	1.6	1.5	98	....
1924	243,700	19.5	14.5	1.3	1.2	1.3	0.7	1.0	1.8	1.6	122	....
1925	244,700	18.8	13.9	1.0	1.3	1.2	0.8	1.0	1.8	1.3	105	....
1926	247,400	18.2	12.4	0.7	1.3	1.3	0.9	1.0	1.6	1.1	103	....
1927* ..	247,600	17.3	13.9	0.7	1.4	1.3	1.1	1.5	1.5	1.3	81	....
Average 5 years.		**18.9**	**13.6**	**0.9**	**1.3**	**1.3**	**0.9**	**1.1**	**1.7**	**1.4**	**102**	....
1928	241,500	16.9	13.3	0.8	1.2	1.3	0.8	1.3	1.4	1.2	106	....
1929	235,600	16.6	15.4	1.5	1.2	1.3	0.9	1.1	2.2	1.6	125	....
1930	230,100	16.5	13.3	0.9	1.2	1.4	0.8	1.3	1.6	1.1	86	....
1931	225,900	15.4	14.2	0.6	1.2	1.4	0.8	1.4	1.8	1.4	101	....
1932	220,300	15.4	13.2	0.6	1.0	1.7	0.9	1.8	1.1	1.1	99	....
Average 5 years.		**16.2**	**13.9**	**0.9**	**1.2**	**1.4**	**0.8**	**1.4**	**1.6**	**1.3**	**103**	....
1933	217,000	15.3	13.9	0.3	1.1	1.5	0.9	2.1	1.2	1.2	80	....
1934	213,850	14.7	13.6	0.6	0.9	1.8	0.9	2.5	0.8	1.1	93	....
1935	210,000	15.0	13.0	0.2	0.9	1.6	0.9	2.7	0.8	1.1	78	....
1936	206,000	15.0	14.0	0.6	1.0	1.7	0.8	3.1	0.9	1.1	90	....

* In the years 1879, 1884, 1890, 1896, 1902, 1908, 1913, 1921, and 1927 the facts are those registered in 53 instead of 52 weeks; corrections have therefore been made in calculating the rates. † Civil population.

SECTION II.

General Work of the Health Department.

(A) SANITARY CIRCUMSTANCES AND SANITARY ADMINISTRATION OF THE DISTRICT.

Natural and Social Conditions of the District.

Salford is situated in the south-east of Lancashire and is partially divided from Manchester by the River Irwell. The older portion of the City lies along the right bank of the river, and the ground rises gradually from an elevation of 85 feet above sea level to about 250 feet, the mean elevation being 140 feet.

The area of the City of Salford is 5,202 acres. The subsoil consists principally of clay interspersed with sand and gravel, with occasional patches of red sandstone.

The population is largely industrial; a considerable portion of the City is occupied by cotton factories and engineering works, with collieries on the outskirts.

The principal Docks and a portion of the Manchester Ship Canal are situated in Salford.

There is no special influence of any particular occupation on the public health of the area.

Owing to the industrial character of the City, and the close proximity of a number of other industrial towns, the atmosphere of Salford is heavily smoke polluted. This pollution contains an excessive proportion of tarry substances given off from the burning of raw coal in domestic grates. Generally speaking, the rainfall is excessive and the atmosphere humid. Owing to the pollution of the atmosphere and the excess of cloud, there is a deficiency of sunshine.

Salford Local Acts and Orders.

Charter of Incorporation for the Borough of Salford granted 16th April, 1844.

Order in Council, dated 14th November, 1854, vesting powers in the Town Council of Salford for providing requisite places of burial for the inhabitants of

the Townships of Salford, Pendleton, and Broughton, and part of the Township of Pendlebury, under the provisions of the Burial Act, 1854.

20 and 21 Vict. cap. cxxxii.
The Salford Borough Act, 1857.

25 and 26 Vict. cap. ccv.
The Salford Improvement Act, 1862.

30 Vict. cap. lviii.
The Salford Improvement Act, 1867.

33 and 34 Vict. cap. cxxix.
The Salford Improvement Act, 1870.

34 and 35 Vict. cap. cx.
The Salford Improvement Act, 1871.

38 and 39 Vict. cap. ci.
The Salford Tramways and Improvement Act, 1875.

45 and 46 Vict. cap. xcvii.
Provisional Order relating to the Borough of Salford confirmed by the Local Government Board's Provisional Order Confirmation (No. 8) Act, 1882.

Order dated 20th December, 1882 and made by the Local Government Board under the provisions of "The Divided Parishes and Poor Law Amendment Act," 1876, as amended and extended by the Poor Law Act, 1879, amalgamating a detached part of the Township of Pendlebury with the Township of Pendleton.

48 and 49 Vict. cap. cii.
The Salford Corporation Tramways Order, 1885, confirmed by the Tramways Orders Confirmation (No. 2) Act, 1885.

49 and 50 Vict. cap. xxv.
The Salford Corporation Act, 1886.

53 and 54 Vict. cap. clxxxvii.
The Salford Electric Lighting Order, 1890, confirmed by the Electric Lighting Orders Confirmation (No. 2) Act, 1890.

54 Vict. cap. xiv.
The Salford Corporation Act, 1891.

54 and 55 Vict. cap. ccxi.
Provisional Order relating to the Borough of Salford, confirmed by the Local Government Board's Provisional Orders Confirmation (No. 14) Act, 1891.

54 and 55 Vict. cap. ccxiii.
Provisional Order relating to the Borough of Salford confirmed by the Local Government Board's Provisional Orders Confirmation (Housing of Working Classes) Act, 1891.

55 and 56 Vict. cap. ccxxiii.
Provisional Order relating to the Borough of Salford confirmed by the Local Government Board's Provisional Orders Confirmation (No. 12) Act, 1892.

56 Vict. cap. xxxi.
The Salford Improvement Act, 1893.

60 and 61 Vict. cap. cclv.
The Salford Corporation Act, 1897.

Order of the Local Government Board, dated 11th September, 1897, conferring on the Corporation certain powers with respect to the acquisition by agreement of rights of way, and certain powers, duties, and liabilities with respect to any charity held wholly or partly for the benefit of the said Townships.

61 and 62 Vict. cap. ccxii.
The Salford Order, 1898, confirmed by the L.G.B. Provisional Orders Confirmation (No. 13) Act, 1898.

An Order, dated 2nd March, 1899, and made by the Local Government Board under the provisions of the Housing of the Working Classes Act, 1890, modifying an improvement scheme relating to the Borough of Salford.

62 and 63 Vict. cap. ccxliv.
The Salford Corporation Act, 1899.

63 and 64 Vict. cap. ccxx.
The Salford Corporation Act, 1900.

1 Edw. VII. cap. ccxxii.
The Salford Corporation Act, 1901.

2 Edw. VII. cap. cxlviii.
The Salford Corporation Act, 1902.

3 Edw. VII. cap. ccxxxvi.
The Salford Corporation Act, 1903.

Order in Council dated 27th March, 1905, directing that none but persons duly licensed shall let Lodgings to Seamen in the Borough of Salford.

6 Edw. VII. cap. ci.
The Salford Order, 1906, confirmed by the L.G.B. Provisional Orders Confirmation (No. 2) Act, 1906.

8 Edw. VII. cap. cxlvi.
The Salford Order, 1908, confirmed by L.G.B. Provisional Orders Confirmation (No. 6) Act, 1908.

2 and 3 Geo. V. cap. cxxxvi.
The Salford Order, 1912, confirmed by L.G.B. Provisional Orders Confirmation (No. 10) Act, 1912.

Order of Local Government Board, dated 5th December, 1917 (Venereal Diseases (Anglesey &c.) Order, 1917).

The Salford Corporation Gas (Standard of Calorific Power) Order, 1918.

The Salford (Union of Townships) Order, 1918.

10 and 11 Geo. V. cap. cxlviii.
The Salford Corporation Act, 1920.

Consent Order of Minister of Health, dated 9th February, 1921, to the Creation and Issue of Stock.

Confirming Order of Minister of Health dated 7th April, 1921, under Section 112 of the Public Health Act, 1875, as amended by Section 51 of the Public Health Acts Amendment Act, 1907, declaring that certain trades be Offensive Trades.

Order of Minister of Health, dated 18th July, 1921, confirming Scheme for the equation and consolidation of loans under the Salford Corporation Acts, 1902 and 1920.

Order of the Council, dated 3rd August, 1921, as to Polling Districts and Polling Places.

Order in Council, dated 10th August, 1921, approving Scheme determining the the Boundaries of the Wards of the Borough and apportioning the Councillors.

12 and 13 Geo. V. cap. xli.
The Salford Order, 1922, confirmed by the Ministry of Health Provisional Orders Confirmation (No. 5) Act, 1922.

The Salford Electricity Special Order, 1923.

Order of the Council, dated 3rd September, 1924, altering the boundaries of certain Polling Districts.

Regulations dated 13th May, 1925, made by the Minister of Transport for regulating the use of Electrical Power on the Salford and District, Eccles, Prestwich and Whitefield Tramways, and other matters.

Order of the Council, dated 1st July, 1925, for the re-division of a portion of the constituency of North Salford and the appointment of polling places.

15 and 16 Geo. V. cap. lxxvii.
The Salford Order, 1925, confirmed by Salford Provisional Order Confirmation Act, 1925.

The County Borough of Salford Roads (Restriction) Order, 1926.

Charter, dated 21st April, 1926, appointing Salford a City.

The Salford Gas Order, 1926.

17 and 18 Geo. V. cap. xcix.
The Salford Corporation Act, 1927.

City of Salford (Springfield Terrace Area Improvement Scheme) Order 1928.

The Salford Gas (Charges) Order, 1928.

19 and 20 Geo. V. cap. xxxix.
The Salford Corporation Act, 1929.

20 and 21 Geo. V. cap. cxxxvi.
The Salford Order, 1930, confirmed by Salford Provisional Order Confirmation Act, 1930.

The City and County Borough of Salford (formerly County Borough of Salford) Roads (Restriction) Amendment Order, 1930.

The Cities of Manchester and Salford (Traffic Regulation) Order, 1932.

23 and 24 Geo. V. cap.
The Salford Corporation Act, 1933.

The Salford Stock Order, 1933.

Order of the Secretary of State, dated 20th July, 1934, as to Superannuation of Justices' Clerk and Staff.

The Salford Registration Scheme, 1934, as to Registration of Births, Marriages and Deaths.

The Salford (Measles) Regulations, 1936.

The Salford (Public Works Facilities Compulsory Purchase) Confirmation Order, 1936.

Enactments Adopted by the Council and Applied by Order.

The Baths and Washhouses Acts. Adopted 4th October, 1876.

Infectious Disease (Notification) Act, 1889. Adopted 5th February, 1890.

Infectious Disease (Prevention) Act, 1890 (except secs. 14 and 19). Adopted 7th January, 1891.

Public Health Acts, Amendment Act, 1890, Parts II., III. (Sec. 19 and 23, amended by S.C.A., 1920), IV. and V. Adopted 7th January, 1891.

Museums and Gymnasiums Act, 1891. Adopted 7th February, 1894.

Public Libraries Act, 1892. Adopted on poll of Ratepayers, reported to Council, 5th October, 1892.

Private Street Works Act, 1892. Adopted 4th April, 1894.

Notification of Births Act, 1907. Adopted 7th January, 1914.

Public Health Acts Amendment Act, 1907 :

Section 19 (urgent repairs to private streets). Order of Minister of Health, dated 14th April, 1921.

Sections 23 (new buildings), 27 (temporary buildings), 33 (exemption of buildings), and 76 (parks and pleasure gardens). Order of Local Government Board, dated 22nd April, 1914.

Section 25 (paving of yards, etc.) and 94 (licensing of pleasure boats). Order of Minister of Health, dated 26th January, 1933.

Section 47 (public conveniences and lavatories). Order of Local Government Board, dated 28th August, 1909.

Section 51 (power to declare a business to be an offensive business). Order of Minister of Health, dated 4th December, 1920.

Section 85 (registries for servants). Order of Secretary of State, dated 12th September, 1923.

Section 95 (purchase of lands). Order of Local Government Board, dated 27th October, 1908.

Part V. (except Section 69). (Common lodging houses). Order of Local Government Board, dated 28th August, 1909.

Local Government and other Officers' Superannuation Act, 1922. Adopted as from 1st April, 1924.

Public Health Act, 1925 :

Sections 13, 14, 15, 17, 18, 19, 20, 21, 23, 24, 25, 26, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42. Adopted as from 1st February, 1933.

Sanitary Circumstances.

WATER.—The water supply is obtained from the Manchester Corporation's reservoirs at Longdendale Valley. It is ample in quantity and excellent in quality.

The whole of the property in the City is supplied on the constant system with water from the Corporation mains. With the exception of a very few houses in common courts, each house is supplied with an internal water supply.

RIVERS AND STREAMS.—The question of river pollution is in the hands of the River Irwell Conservancy Committee.

Drainage and Sewerage.

The drains of the District are satisfactory. Salford sewage is conveyed to the Sewage Works at Weaste by a combined system of Sewers. The sewage is treated with Lime and Copperas, after which it is passed through settling tanks, and thence through aerating filter-beds and humus tanks. The effluent from the humus tanks is discharged into the Manchester Ship Canal and the residual sludge carried out to sea by steamer.

Public Cleansing.—The removal and disposal of house refuse is under the authority of the Lighting and Cleansing Committee of the Corporation.

PUBLIC CLEANSING.

No alteration in the method of disposing of dry house refuse in Salford took place during 1936, as compared with 1935. I am indebted to the Director of Public Cleansing for the following particulars as to the method of collection and disposal of refuse, etc., in Salford :—

(*a*) The method of collecting dry house refuse.	Weekly collection in dustless loading vehicles from galvanised standard ashbins.
(*b*) The method of collecting refuse from earth closets and privies.	No privy ashpits. The number of excreta pails is negligible. The collection of excreta, in two-wheeled tanks, is made during the midnight hours, and taken direct to the Chief Depôt of the Cleansing Department.
(*c*) The method of disposing of dry house refuse.	Strictly under Controlled Tipping methods as laid down by the Ministry of Health, and also by incineration at the Chief Depôt of the Cleansing Department.
(*d*) The method of disposing of refuse from earth closets and privies.	(See (b)).

Sanitary Inspection of District.

Staff.—The staff employed in this connection consists of the Chief Inspector, a Deputy Chief Inspector, thirteen Assistant Inspectors, and one Lady Inspector.

This is an increase of two Assistant Inspectors from last year whom it became necessary to appoint owing to the transference of two District Inspectors to the position of Housing Inspectors.

The systematic inspection of the City was conducted during the year 1936 on the same lines as in previous years. The result of the inspections may be gathered from a perusal of the "Register of Work Done," which is to be found at the end of this section of the report. It shows that the number of complaints received at the office of the Department was 5,797, as compared with 6,460 received in 1935, also that 9,047 dwellinghouses were inspected during the year. The details of each section of the work will be found under the special heading.

TABLE G. 1.

Common Lodging Houses, 1936.

	Wards.			
	Crescent.	St, Paul's.	Trinity.	Total.
Number on Register	6	1	3	**10**
Number added to Register in 1936	....	....	....	....
Number removed from Register in 1936	....	....	1	**1**
Number of Rooms	53	6	18	**77**
,, Beds	251	25	367	**643**
Average Number occupied each night–Males.	94	16	275	**385**
Females.	....	....	....	....
Notices served on Landlords	8	....	3	**11**
,, ,, Keepers	....	....	....	....
Number of Day Inspections	125	29	66	**220**
,, Night Inspections	1	1	....	**2**

Common Lodging Houses.

There were 10 Common Lodging Houses on the register during the year, including "Salford House" in BloomStreet ; six are in the Crescent Ward, three in Trinity, and one in St. Paul's Wards. These houses contain 77 rooms, with 643 beds. The average number of beds occupied per night was 385 for males and none for females. 220 inspections were made during the day time and 2 at night.

The addresses of and particulars relating to these lodging houses are as follows :—

Address.	Accommodation. Sleeping Rooms.	Lodgers.	Total number of lodgers who could be accommodated during the year.	Total number of lodgers accommodated during the year.
17, Bolton Street	5	49	17,885	9,544
61, Bury Street	7	33	12,045	5,854
" Salford House," Bloom Street	6	285	104,025	84,900
21, East Ordsall Lane	2	16	5,840	280
1 and 1A, Park Place	24	125	45,625	17,584
2, Park Place	13	25	9,125	6,769
3, Park Place	4	36	13,140	2,786
13, Windsor	4	15	5,475	982
2, Comus Street	6	34	12,410	5,720
2, West High Street	6	25	9,125	5,752

The total number of lodgers who could be accommodated during the year, in all the houses, was 234,695, and the total number actually accommodated was 140,171, a difference of 94,524.

Of the 643 beds, an average of 385 was occupied each night, leaving an average of 258 beds empty.

One house No. 21, East Ordsall Lane, was only occupied part of the year, the house being discontinued as a lodging house in March.

The above figures show that although the lodging houses as a whole (excluding the Corporation's own institution—" Salford House ") were occupied to only 42.3 per cent. of their full capacity, " Salford House " itself was occupied to the extent of 81.6 per cent. of its total accommodation, and this in spite of the fact that its charges are about 25 per cent. higher than those obtaining in ordinary lodging houses.

These lodging houses have been kept in good and clean condition during the year, and the Byelaws have been observed.

Houses Sub-let in Lodgings.

There are 373 houses let in apartments in the City; these contain 2,156 rooms. Eight houses were registered during the year and 33 discontinued.

The registration of these houses gives us power to inspect them at any time. They have been inspected from time to time, and they have received 1,024 inspections in the day time and 405 at night.

Throughout the year the District Inspectors have given much attention to the question of overcrowding as regards many of these houses.

There were 75 infringements of the Byelaws ; 32 of these were for staircases and landings not being artificially lit at night, 3 for rooms being overcrowded, 32 for houses requiring cleansing and re-decorating, 2 for no proper washing accommodation for clothes, 3 for there being no means provided for the preparation, cooking or storage of food, and 3 for accumulations of refuse, etc.

During the year 82 infringements were rectified : this figure includes a number of infringements found during the previous year.

Seamen's Lodging Houses.

There were 6 Seamen's Lodging Houses in the City on the Register during the year, containing 22 rooms and 65 beds. There have been 7 applications for renewals and new licences.

The Byelaws in force regulating these houses have been carried out, and the houses generally kept in good and clean condition. 23 visits have been made during the day time.

The addresses of and particulars relating to these houses are as follows :—

Address.	Accommodation. Sleeping Rooms.	Lodgers.
53, Trafford Road	5	18
68, Monmouth Street	4	8
73, Goodiers Lane	4	14
61, Trafford Road	3	12
178, West Park Street	3	7
78, Monmouth Street	3	6

The keepers of these houses are not required to submit a Return of the number of Seamen sleeping on the premises, but it is the general impression from the visits made by the Inspectors that these houses are not used to the fullest extent. This is no doubt due to the slackness of trade in the shipping business.

Workshops.

At the end of the year there were 1075 workshops and workplaces on the register. These have been regularly inspected by the Lady Inspector of Workshops and by the District Inspectors, the Lady Inspector visiting those workshops where females are employed and the District Inspectors visiting those premises where males only are employed.

One hundred and eighty defects were found in the workshops, the particulars being given in Table B. The chief defect was want of cleanliness both in the workshops and bakehouses, which was found in 11 cases and 114 cases respectively. 36 notices were served, and in other cases the tenants were cautioned and the defects remedied.

At bakehouses where persons of both sexes are employed, it was found in many cases that the sanitary accommodation was insufficient or not separate for the sexes : additional w.c.'s have been provided in these cases.

Re Outworkers.—The women outworkers' premises are visited by the Lady Inspector of Workshops, and those of the men by the District Inspectors.

During the year 207 visits have been paid.

During this year the Lady Inspector of Workshops has inspected 829 Fish and Chip Restaurants, to ascertain the conditions as to cleanliness and sanitation.

As the registration of these premises is not compulsory in Salford, such businesses are established without the cognizance of the Department and are often carried on in an unsatisfactory manner until they are discovered during the inspection of the district.

FACTORIES, WORKSHOPS, WORKPLACES AND HOME-WORK.

A.—Inspection.

Including Inspections made by Sanitary Inspectors during the Year 1936.

Premises. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Prosecutions. (4)
Factories (Including Factory Laundries)	42	9	....
Workshops (Including Workshop Laundries)	2400	36	....
Workplaces (Other than Outworkers' premises included in Part 3 of this Report)	829	15	....
Total	3271	60	....

B.—Defects Found.

Premises.	Number of Defects. Found.	Remedied.	Referred to H.M. Inspector.	Number of Prosecutions.
(1)	(2)	(3)	(4)	(5)
*Nuisances under the Public Health Act—**				
Want of cleanliness	130	130	13	....
Want of ventilation	4	4	....	....
Overcrowding	1	1	....	....
Want of drainage of floors	10	9	....	....
Other nuisances	14	14	....	....
Sanitary accommodation — insufficient	12	12	12	....
Sanitary accommodation — unsuitable or defective	7	6	6	....
Sanitary accommodation — not separate for sexes	....	†1	....	....
Offences under the Factory and Workshops Act—				
Illegal occupation of underground bakehouse (s. 101)	2	2	....	....
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)	....	....	....	....
Other offences (excluding offences relating to outwork which are included in Part 3 of this Report)	....	....	....	....
Total	180	179	32	....

* Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act as remediable under the Public Health Acts.

† Defect found during the year 1935.

NATURE OF WORK.	Outworkers' Lists, Section 107.											Number of Inspections of Outworkers' premises.	Outwork in Unwholesome Premises, Section 108.			Outwork in Infected Premises, Sections 109, 110.		
	Lists received from Employers.						Number of Addresses of Outworkers received from other Authorities.	Number of Addresses of Outworkers forwarded to other Authorities.	Notices served on Occupiers as to keeping or sending lists.	Prosecutions.								
	Sending twice in the year.			Sending once in the year.						Failing to keep or permit inspection of lists.	Failing to send lists.		Instances.	Notices served.	Prosecutions.	Instances.	Order made, S. 110.	Prosecution, SS. 109, 110.
	Lists.	Outworkers.		Lists.	Outworkers.													
		Contractors.	Workpeople.		Contractors.	Workpeople.												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
*																		
Wearing Apparel—																		
1. Making, &c	28	18	276	...	....	....	126	191	....	....	....	207	....	....	....	....	....	....
2. Cleaning and washing	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Lace, lace curtains and nets	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Artificial flowers	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Nets, other than wire nets	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tents	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sacks	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Furniture and upholstery	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Fur pulling	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Feather sorting	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Umbrellas, &c	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Carding, &c., of buttons, &c.	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Paper bags and boxes	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Basket making	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Brush making	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Racquet and tennis balls	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Stuffed toys	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
File making	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Electro plate	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Cables and chains	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Cart gear	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Locks, latches and keys	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Anchors and grapnels	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pea picking	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	28	18	276	....	....	....	126	191	....	....	....	207	....	....	....	....	....	....

* List of Industries as prescribed by Home Office.

D.—Registered Workshops.

Workshops on the Register (s. 131) at the end of the year. (1)	Number. (2)
Tenement Workshops	3
Domestic Workshops	183
Laundries	10
Workshop Bakehouses	277
Other Workshops	365
Total number of Workshops on Register	838

E.—Other Matters.

Class. (1)		Number. (2)
Matters notified to H.M. Inspector of Factories—		
Failure to affix abstract of the Factory and Workshop Act (s. 133)		10
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5).	Notified by H.M. Inspector.	20
	Reports (of action taken) sent to H.M. Inspector.	*21
Other		....
Underground Bakehouses (s. 101)—		
Certificates granted during the year		....
In use at the end of the year		....

* Including reports of action taken in cases notified in previous year.

F.—Additional Sanitation for Retail Bakehouses, Sections 97—102.

Number of such premises in the district, 277.
Note as to their sanitary condition. Ground floor bakehouses—Good.
Action taken as to retail bakehouses in 1936, 17 notices served.

Action taken.	No. of Defects found.	Notices served.	Legal Proceedings.	Defects remedied	Remarks.
As to Closets, &c., Sec. 97	2	....	....	2	
As to Water Cisterns, Sec. 97	....	....	....	....	
As to Drain Openings, Sec. 97	1	....	....	1	
As to Limewashing, &c., Sec. 97	78	5	....	78	
As to Sleeping Places, Sec. 100	....	....	....	....	

Any proceedings under Section 98 as to retail bakehouses sanitarily unfit, Nil.

BAKEHOUSES, 1936.

Registered	277
Added to Register	25
Discontinued	15
Changed Hands	21
Number of Underground Bakehouses Certified by Authority	Nil.
Total Number of Ovens	355
Employees—Males	268
,, Females	522
Notices Served	17

Smoke Nuisance.

Particulars as to smoke nuisance caused by firms during the year 1936 and dealt with by the Health Committee :—

Five Notices were issued under the Public Health Act.

During the year 1,897 smoke observations have been made as against 3,563 in the year 1935 and 3,495 in the year 1934.

Sixty-nine stokers and others were cautioned by the Inspector for negligence in firing the furnaces under their charge, at the same time 11 firms were reported to and dealt with by the Health Committee, also 11 cautionary Notices were issued to firms with a table of smoke observations taken from their chimneys.

Several chimneys have been raised during the year in connection with small workshops.

TABLE SHOWING THE NUMBER OF HALF-HOURLY OBSERVATIONS TAKEN DURING THE YEAR 1936.

Minutes of Black Smoke emitted in half-an-hour.	No. of Observations Taken.	Percentage to Total.
No Black Smoke	1,511	79.7
One Minute	375	19.8
Two Minutes	4	0.2
Three Minutes	1	....
Over Three Minutes	6	0.3
Total Observations	1,897	100.0

Manure Receptacles, and Removal of Manure and other Offensive Matter.

The Byelaws with respect to receptacles for manure and the weekly removal of the manure, filth, or other offensive or noxious matter, which came into operation towards the end of 1909, have been enforced during the past year, and special attention has been paid to stable yards where manure quickly accumulates.

The Byelaws as regards the regular removal of manure have been well observed.

Canal Boats Acts.

Number of canal boats inspected	99
Number of canal boats conforming to Acts	99
Number of canal boats with one or more infringements	—
Total number of infringements	—
Registration	—
Absence of certificates	—
Dilapidation of certificate	—
Marking	—
Overcrowding	—
Separation of sexes	—
Cleanliness	—
Ventilation	—
Ventilators obstructed	—
Painting	—
Provision of water vessel	—
Water vessels broken	—
Removal of bilge water	—
Boats defective and leaking	—
Dilapidation	—
Stoves defective	—
Stove pipes defective	—
Pumps defective	—
Admittance of Inspector	—
Notification of infectious disease	—
Certificates not identifying owners	—
Loading manure without tight bulkheads	—
Number of notices served	—
Other steps to secure compliance—Letters written to owners	—
Detention of boats for cleansing and disinfection	—
Legal proceedings taken	—
Number of boats on register : Not a Registration Authority.	
Canal boats registered to carry (number of persons)	506
Men found on the boats	186
Women found on the boats	9
Children under 12 years found on the boats	7

Drainage Inspection.

The testing and examination of all existing drainage is carried out by this Department. Two Inspectors and four labourers are kept continually at work examining drainage, and the following table gives the detailed results of their labours :—

Number of tests made	728
,, applications from householders	10
,, houses affected by the tests	1,424
,, notices and reports issued	1,166
,, notices and reports complied with	1,031
,, drain inlets opened and cleared	1,522

Insanitary Conditions Found.

Defects.

Number of drains wholly and partly choked	794
,, drains defectively constructed	304
,, gully traps badly laid	51
,, drains defectively trapped	30
,, waste pipes defectively trapped or connected to drains	10
,, downspouts connected to drains	53
,, soil pipes with leaking joints or defectively ventilated.	59
,, defective water-closets	128
Total defects	1,429

Reconstruction of Drains and the Construction of New Drains.

Number of tests applied	795
,, houses affected	821
,, passage main drains affected	45

MODE WHEEL AMBULANCE AND DISINFECTING STATION.

The Ambulance and Disinfecting Station situated in Mode Wheel Road is under the control of the Medical Officer of Health. The Station is used for the following purposes :—

(*a*) The disinfecting of bedding, clothing, etc., from the homes of persons suffering from infectious diseases by means of high-pressure steam disinfection.

(*b*) As a depôt for the disinfectors employed in disinfecting houses, schools, and public institutions in which a case of infectious disease has occurred.

(*c*) As a station for the bathing of verminous persons and the disinfection of their clothing.

(*d*) The bathing of persons suffering from scabies (particularly school children), and the disinfection of their clothing.

(*e*) The bathing of midwives who have been in contact with cases of puerperal fever, and the disinfection of their clothing and instruments.

(*f*) As a garage for the three motor ambulances required to take persons to and from Hospital and the three motor vans used to collect and deliver bedding, etc., before and after disinfection, and in connection with the cleansing of conveniences. The Station is also used as a repair depôt for the whole of the motor vehicles used in the Department.

The Staff employed at the Station is as follows :—

Foreman.
Caretaker.
Motor Mechanic.
Four Disinfectors.
Four Drivers.

The following is a summary of the work done at the Mode Wheel Disinfecting Station during 1936 :—

AMBULANCES.

	Salford Cases.	Out-District Cases.	Total Cases.
Number of journeys removing patients to Hospital	1,503	427	1,930
Number of journeys removing patients from Hospital to their homes	418	—	418
Number of houses visited by ambulances removing bedding for disinfection	530	37	567

VANS.

Number of houses visited by vans returning bedding after disinfection	1,670	198	1,868

In addition, 582 journeys to Hospital for purposes other than removal of patients were made by motor vehicles. 269 journeys were made in connection with the treatment of children suffering from scabies.

DISINFECTIONS.

Number of houses disinfected	1,540
,, rooms disinfected	4,944
,, bundles of clothing and bedding disinfected	6,872*
,, books disinfected	280
,, schools disinfected	3
,, hospitals disinfected (occasions)	10
,, rooms in ships disinfected	1

* Including 3,026 for Hope Hospital.

BATHING AND DISINFECTION OF CLOTHING.

Midwives	14
Smallpox convalescents	Nil.
Verminous persons	Nil.
Children suffering from scabies	1,720

The disinfection at the Mode Wheel Disinfecting Station of bedding and clothing from Hope Hospital was continued during 1936.

MOTOR AMBULANCE SERVICES.

The following is a summary of the Motor Ambulance Services provided in Salford :—

(1) HEALTH DEPARTMENT—

Number of motor ambulances :—

(*a*)	For Infectious Diseases	3
(*b*)	,, Hope Hospital	3

(Including one semi-ambulance)

The ambulances under (*a*) are stationed at the Mode Wheel Disinfecting Station, Weaste, and are used principally for conveying cases of infectious disease to and from the Ladywell Sanatorium, the Nab Top Sanatorium, and the homes of Salford residents. They are also used for a similar purpose, so far as the Ladywell Sanatorium only is concerned, in the case of a number of out-districts. In addition, they are used for conveying to their homes : (*a*) school children who have been operated upon for the removal of tonsils and adenoids, and (*b*) school children suffering from scabies who have been bathed at the Mode Wheel Disinfecting Station.

The ambulances under (*b*) are used for the conveyance of patients only, including maternity cases, to and from Hope Hospital, while the semi-ambulance is used for conveying children to and from the Culcheth Cottage Homes, and sitting-up cases.

(2) POLICE DEPARTMENT—

Number of motor ambulances	4

These ambulances are stationed at the Fire Station, Crescent, Salford. They are used primarily for accidents, but are also used occasionally for private cases.

I am of opinion that the ambulance facilities available in Salford are adequate.

PROPAGANDA.

The distribution of the periodical " Better Health " was continued during 1936 ; this magazine, published at monthly intervals, is distributed free of charge. Copies are supplied to all the large firms in the City for distribution to their employees and, by arrangement with the Education Department, each School Teacher is provided with a copy.

The displays which have been given in the windows on the ground floor of the Health Offices, in Regent Road, for eight years, were continued during 1936.

Swimming Baths.

At present there are operating in this City four public swimming baths containing a total of nine plunges, all of which are owned by the Corporation. During 1936, each of these plunges was sampled at least once every week during the summer bathing period (1st May to 30th September) and those which were opened to the public during the winter were sampled once a month. During the year, 199 samples in all were examined by the City Analyst and the results compared with the " Chemical Guarantees " suggested in the Ministry of Health publication on " The Purification of the Water of Swimming Baths," 1929. No serious deviation in chlorine content was found ; in regard however to alkalinity, a sample from one of the baths during the early summer gave a pH reading of 3.8. On investigation it was found that an unskilled assistant was inaccurately recording the daily pH readings. In this connection, where comparators are used it is not often realised that the total change in colour of an indicator only represents a relatively small difference in pH value and that if the colour shown occurs at the end of the scale, another indicator and colour disc should be tried to verify the results indicated.

During 1936 the City Pathologist examined 191 samples of swimming bath water, the samples being collected at the same time as those for the City Analyst. From May 25th to October 20th weekly examinations were made, but only once a month during the winter months. The results from the Pendleton Baths were consistently good throughout the year, whilst Blackfriars Baths had six bad results and Seedley and Regent Road Baths seven bad results. These bad results did not always mean that bacillus coli was present in excess, but that the total count of organisms was greater than the count allowed by the Ministry of Health regulations.

With a view to conforming to the suggestions of the above-mentioned publication, new filtration and purification plants were installed at two of the bathing establishments during the year. Several investigations have been carried out by the City Analyst in order to facilitate the effective running of the new plants. These included the chemical examination of scum collected from the surface of the water, analyses of filter sand and of coagulating media. Three of the four swimming baths in the City are now equipped with continuous filtration and chlorination plants capable of a turnover period of not more than four hours.

Sanitary Conveniences.

There are 21 conveniences for Males and 5 for Females in the City, under the control of the Health Committee, and also 2 public conveniences for Males, and 2 for Females under the joint control of the Health Committee and Parks Committee, namely :—

Situation.	Males.				Females.		
	Urinal Stalls	Water Closets	Wash Basins	Attendant	Water Closets	Wash Basins	Attendant
Trinity Market	6	3	3	1	3	3	1
Trafford Road (Eccles New Road corner)	15	4	4	1	....	....	....
Trafford Road (Ordsall Park)	12	4	6	1	....	....	....
Church Street (near the corner of Broad Street)	10	2	3	1	3	3	1
Cross Lane	....	....	....	....	4	4	1
Oldfield Road (Corner of Chapel Street)	6	....	....	....	....	....	....
Liverpool Street	4	....	.. .	....	....	....	....
Bolton Road (Junction of Claremont Road)	6	....	....	....	....	....	....
Broughton Road	16	....	....	....	....	....	....
Windsor Bridge	6	....	....	....	....	....	....
Stevenson Street	3	....	....	....	....	....	....
Park Lane	5	....	....	....	....	....	....
Broad Street	3	....	....	....	....	....	....
Greengate Arch	6	....	....	....	....	....	....
Broughton Bridge	8	....	....	....	....	....	....
Frederick Road	4	....	....	....	....	....	....
Moor Lane	6	....	....	....	....	....	....
Cross Lane	5	....	....	....	....	....	....
Albert Park	6	....	....	....	....	....	....
Crescent, near Victoria Arch.	6	....	....	....	....	....	....
Charlestown Recreation Ground	4	2	....	....	2	....	....
Mandley Park	4	3	....	....	3	....	....

One new public convenience for the use of males, and 1 for females, has been erected on the Charlestown Recreation Ground, comprising 4 urinal stalls and 2 w.c.'s for the use of males and 2 w.c.'s for the use of females.

The public conveniences at Eccles New Road and Blucher Street have been demolished ; at Eccles New Road on account of extensions to the Royal Hotel, and at Blucher Street on account of general dilapidation.

TABLE G 3.

CASES HEARD BEFORE THE MAGISTRATES DURING 1936.

Offence.	No. of Cases.	Decision of Magistrates.	Total Fines (without costs).
			£ s. d.
For failing to comply with the requirements of Notices under the P.H.A. 1875, to abate nuisances arising from certain sanitary defects.	7	1 Fined £2 2s. 0d. costs and order to abate made. 1 Fined 10s. and order to abate made. 1 Fined 10s. and order to abate made. 1 Fined £1 0s. 0d. and £1 0s. 0d. costs. 1 Fined 5s. and order to abate made. 1 Fined £5 0s. 0d. and £2 2s. 0d. costs. 1 Fined £5 0s. 0d. and £2 2s. 0d. costs.	12 5 0
For failing to comply with the requirements of Notices under the Salford Improvement Act, 1867, with respect to defective eavesgutters and downspouts.	4	1 Fined 40s. 1 Fined 10s. 1 Fined 3s. per day for 58 days. 1 Fined 1s. per day for 100 days.	16 4 0
For failing to comply with the requirements of Notices served under the Streets, Buildings and Sanitary Requirements of the Corporation with respect to defective yard surfaces.	1	1 Fined 10s.	0 10 0
For contravening Section 5 of the Housing Act, 1925, by failing to inscribe the name and address of owner in rent book.	2	1 Fined 10s. 0d. 1 Fined £1 0s. 0d. and £1 0s. 0d. costs.	1 10 0
For contravening Section 1 of the Shops Act, 1934, by allowing the weekly maximum of working hours to be exceeded by a young person.	2	1 Fined 10s. 0d. 1 Fined 5s. 0d.	0 15 0
For not exhibiting the prescribed form setting forth the number of hours which a young person may be employed about the business of a shop.	1	1 Fined 10s. 0d. and 5s. 0d. costs.	0 10 0
Carried forward	17		£31 14 0

CASES HEARD BEFORE THE MAGISTRATES DURING 1936.—*continued.*

Offence.	No. of Cases.	Decision of Magistrates.	Total Fines (without costs).
			£ s. d.
Brought forward	17		31 14 0
For not keeping a record of the hours worked by and the intervals allowed for rest and meals to a young person employed.	1	1 Fined 10s. 0d. and 5s. 0d. costs.	0 10 0
For not providing a seat for the female shop assistant employed.	1	1 Fined 10s. 0d. and 5s. 0d. costs.	0 10 0
For contravening the Half-Holiday Order under the Shops Act, 1912, by allowing the shop to be open on the half-day for closing.	1	Dismissed on payment of costs 4s. 0d.	—
For failing to exhibit the prescribed form as to Shop Assistants' Half-Holiday under the Shops Act, 1912	1	Fined 10s. 0d.	0 10 0
For failing to keep a record of the hours worked by a young person employed at a shop, as required by the Shops Act, 1934.	1	Fined 10s.	0 10 0
For not allowing the requisite time for tea interval to a young person employed at a shop.	1	Withdrawn.	—
For contravening the Retail Furniture Dealers' Weekly Half-Holiday Closing Order by allowing the shop to be open.	1	Discharged under Probation of Offenders Act upon payment of 5s. 0d. costs.	—
For selling Lysol soap containing no Lysol.	1	Dismissed. £1 1s. 0d. costs against Corporation: Stipendiary held no power to fix a standard. Corporation appealed, which was allowed, and case referred to Stipendiary for conviction. Fined 5s. 0d.	0 5 0
Carried forward	25		£33 19 0

CASES HEARD BEFORE THE MAGISTRATES DURING 1936.—*continued.*

Offence.	No. of Cases.	Decision of Magistrates.	Total Fines (without costs).
			£ s. d.
Brought forward	25		33 19 0
For aiding, abetting, counselling and procuring in above offence.	1	Dismissed. £21 0s. 0d. costs against Corporation. Corporation appealed and case referred to Stipendiary for conviction. Fined 10s. 0d. and £5 5s. 0d. costs. Order made for return of £21 costs granted at the first hearing of case.	0 10 0
For applying a false trade description to goods, to wit Lysol soap.	1	Dismissed under Probation of Offenders Act.	—
For exposing for sale imported butter not labelled with Country of origin or marked " Foreign " as required by the Merchandise Marks (Imported Goods) No. 1 Order, 1932.	3	2 Fined 10s. 0d. 1 Fined 10s. 0d. and 10s. 0d. costs.	1 10 0
For selling a part 2 poison, to wit Phenol Disinfectant and not being a person listed on the Corporation list as a seller of Part 2 poisons.	2	1 Fined £2 0s. 0d. and £1 1s. 0d. costs. 1 Fined 10s. 0d.	2 10 0
For selling a Part 2 poison, to wit Phenol Disinfectant to a Sampling Officer which did not bear the name and address of the seller as required by Section 18 (*c*) of the Pharmacy and Poisons Act, 1933.	2	1 Fined 10s. 0d. 1 Fined £2 0s. 0d.	2 10 0
For exposing for sale by retail at Cross Lane Open Air Market imported raw tomatoes not having an indication of origin as required by the Merchandise Marks (Imported Goods) No. 4 Order, 1929.	1	1 Fined 10s. 0d. and 10s. 0d. costs.	0 10 0
For selling sausages contrary to Section 2 Food and Drugs (Adulteration) Act, 1928, inasmuch as they contained preservatives without declaration.	1	Dismissed under Probation of Offenders Act.	
For aiding, abetting, counselling and procuring certain persons to commit above offence.	1	Dismissed under Probation of Offenders Act. To pay £3 3s. 0d. costs.	—
Total.....	37		£41 9 0

Shops Acts, 1912 to 1934.

In the enforcement of "early closing" of shops, the Chief Constable and his staff co-operated.

With a view to securing compliance with the Acts in-so-far as "early closing," "half-day closing," and the "shop assistants' weekly half-holiday" are concerned, the Inspector exercised constant supervision. Where contraventions occurred, the occupiers were interviewed by the Inspector and subsequently written on the subject. On further visits, these warnings were found to have been effective, except in two cases.

In connection with the health and comfort of shop-workers and the hours of employment of young persons, a survey of shops in certain thoroughfares was made.

The co-operation of employers was sought with a view to improving the conditions under which assistants work and complying with the Shops Act, 1934, and in the majority of cases the response was highly satisfactory.

In dealing with the conditions of shop workers, one has to remember that the employees spend more time at their place of employment than do employees in any other industry or organisation. This makes it all the more important that the standard of conditions should be maintained at as high a level as possible.

It will be seen by the following tables how much valuable work has been done.

CONTRAVENTIONS OF SECTION 10 OF THE SHOPS ACT, 1934.

Particulars.	Number of contraventions found.	Number remedied following communication.
1. Non-provision of Suitable and Sufficient means of Ventilation	10	10
2. ,, ,, ,, ,, ,, means to maintain a reasonable temperature.	59	34
3. ,, ,, ,, ,, ,, sanitary conveniences, or the inadequate maintenance of same	101	72
4. ,, ,, ,, ,, ,, washing facilities, or the inadequate maintenance of same	70	50
5. ,, ,, ,, ,, ,, means of lighting, or the inadequate maintenance of same	22	15
6. ,, ,, ,, ,, ,, facilities for the taking of meals by the employees, or the inadequate maintenance of same	77	55

CONTRAVENTIONS OF SHOPS ACTS, 1912-1934

	Written.	Subsequent compliance.
Non-exhibition of Forms and Records required in connection with Shop Assistants, particularly "Young Persons"	243	240
Contraventions of half-day closing	140	138
,, ,, early closing	32	32
,, ,, weekly half-holiday for shop assistants	7	7
,, ,, provision of proper meal times for shop assistants	16	6
,, ,, provision of seats for female shop assistants	10	9
,, ,, restriction of maximum weekly working hours for "young persons"	4	2
	452	434

LEGAL PROCEEDINGS TAKEN.

Particulars.	Number of Summonses issued.
1. Contraventions of half-day closing	2
2. " Young persons " working in excess of maximum weekly working hours	2
3. Not recording the hours worked by " young persons "	2
4. Non-exhibition of prescribed form showing weekly half-holiday	1
5. ,, ,, ,, ,, showing number of hours permitted to be worked by a young person	1
6. Non-provision of seats for female shop assistants	1

Inspections.

Number of visits to shops in connection with half-day closing	4,389
,, ,, ,, ,, ,, ,, early closing	2,413
,, ,, shops surveyed in connection with the employment of young persons and in connection with sanitary and other arrangements	926
,, ,, certificates of exemption granted from the provision of sanitary conveniences and washing facilities within the shop premises	41

Housing Conditions.

YEAR ENDED 31ST DECEMBER, 1936.

(*a*) GENERAL STATISTICS.

Area (acres)	**5,202**
Population (1936) (Registrar General's Estimate)	**206,000**
Number of Houses (At 1st April, 1936)	**52,283**
Rateable Value (1936-1937)	**£1,129,830**
Sum represented by a penny rate (Estimate)	**£4,300**

(B) HOUSING STATISTICS.

1. Inspection of dwellinghouses during the year :—

1. (*a*) Total number of dwellinghouses inspected for housing defects (under P.H. or Housing Acts) 9,047
   (*b*) Number of inspections made for the purpose 27,663

2. (*a*) Number of dwellinghouses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 ..... Nil.
   (*b*) Number of inspections made for the purpose ..... Nil.

3. Number of dwellinghouses found to be in a state so dangerous or injurious to health as to be unfit for human habitation 228

4. Number of dwellinghouses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation 6,440

2. Remedy of defects during the year without service of formal Notices :—
   Number of defective dwellinghouses rendered fit in consequence of informal action by the Local Authority or their officers 2,501

3. Action under Statutory Powers during the year :—

A. Proceedings under Sections 17, 18 and 23 of the Housing Act, 1930 :

1. Number of dwellinghouses in respect of which notices were served requiring repairs 110

2. Number of dwellinghouses which were rendered fit after service of formal notices :—

   (*a*) by owners 34
   (*b*) by Local Authority in default of owners ..... Nil.

Under Section 17 of the Housing Act, 1930, Notices were served in connection with the insanitary condition of 110 houses.

This action necessitated a detailed inspection of every house, and specifications of the works necessary to render the houses fit for human habitation were prepared. In order that the Council could be satisfied with regard to reasonable expense or otherwise, estimates of the cost of works in accordance with specifications were arrived at and also estimates of the value which the various houses would have on the completion of the works.

No difficulty has arisen in consequence of the service of such Notices. In every case, the owners have taken early steps to comply with Council requirements and there has been no instance of the Council being required to execute repairs by default.

In all cases work has either been completed or was in hand at the end of the year.

B. Proceedings under Public Health Acts :

1. Number of dwellinghouses in respect of which notices were served requiring defects to be remedied..... 2,341

2. Number of dwellinghouses in which defects were remedied after service of formal notices :—

   (*a*) by owners..... 2,329
   (*b*) by Local Authority in default of owners..... Nil.

C. Proceedings under Sections 19 and 21 of the Housing Act, 1930 :

1. Number of dwellinghouses in respect of which Demolition Orders were made..... Nil.

2. Number of dwellinghouses demolished in pursuance of Demolition Orders..... Nil.

D. Proceedings under Section 20 of the Housing Act, 1930 :

1. Number of separate tenements or underground rooms in respect of which closing orders were made..... Nil.

2. Number of separate tenements or underground rooms in respect of which closing orders were determined, the tenement or room having been rendered fit..... Nil.

E. Works executed on Owners' Undertakings :

During the year, approval was given to schemes submitted by owners of properties in anticipation of Council action under Part I. or Part II. of the Housing Act, 1930.

Such undertakings by owners for the remodelling of insanitary properties, or for the satisfactory repair of houses not in all respects fit for human habitation, concerned a total of 63 houses ; the works have either been satisfactorily completed or are at present in progress.

FITNESS OF HOUSES.

No special difficulties have been found in action under the Public Health Acts. The property owners in general show a disposition to comply with the Notices served under these Acts.

BYELAWS.

In general, the existing Byelaws and Local Acts are found to be adequate, and no special difficulties have been experienced in their enforcement.

Clearance Orders and Re-Housing.

During the year, the Council made 25 Clearance Orders, declaring the total of 228 dwellinghouses to be unfit for human habitation. The areas defined were small ; there were 244 families resident in the scheduled houses and the number of persons concerned was 789. Every Order was confirmed by the Ministry of Health after Public Inquiry had been held.

Eighteen Orders became operative in December, 1936, and the other 7 should become operative early in 1937. All the families displaced by the operation of these Orders will be removed to new accommodation which is approaching completion at Duchy Road, Pendleton, and at Fairy Lane, Strangeways.

In August this year, the first block of flats at the Langworthy Estate, Eccles New Road, was completed, and re-housing of families displaced by the operation of the Ordsall Lane Compulsory Purchase Order commenced. One hundred and twenty-seven families were transferred. All removals entailed gas fumigation of furniture and steam disinfection of bedding and were carried out by contract at the expense of the Council.

The vacated premises in the Ordsall Lane Area, 124 in number, were cleansed from vermin by treatment with HCN gas, and have been demolished.

The balance of the flats in the Eccles New Road Scheme, viz., 292, are well advanced in construction and it is anticipated that all the flats will be completed and occupied in 1937. This will permit the clearance of the whole of the Ordsall Lane site and also the sites of 15 other areas, which are to be represented to the Council at the beginning of the coming year.

Housing Act, 1935. Overcrowding Survey.

The Survey, which was commenced on the 9th December, 1935, was completed during 1936 and the report thereon sent to the Ministry of Health.

Eighteen Enumerators and two Clerks were engaged and every working-class house was visited by the Enumerators who obtained the required information.

The total number of occupied dwellings visited was 49,364 of which 47,052 contained 6 rooms or less and might be classified as working-class houses and which were accounted for in the report to the Ministry of Health. In addition, there were 2,312 large houses, which were capable of accommodating families consisting of more than 12 adult persons. There were also 672 dwellinghouses and flats vacant at the time of the survey and 344 shops with vacant living accommodation attached.

The number of families in working-class houses recorded was 49,566. Of these, 2,042 families were living under overcrowded conditions.

The provisions of the above Act with regard to overcrowding do not take effect until after the " appointed day " which has been fixed by the Minister of Health as 1st January, 1937.

Towards the end of 1936, enumerators were again engaged and working class houses in 14 wards were measured and the " permitted numbers " calculated. These numbers were sent on application to the property owners or agents. The remainder of the working-class houses will be measured and the owners informed of the permitted numbers as quickly as possible.

In the near future, such action will be taken as is required by the Act for the purpose of abating the overcrowding of working-class houses in the City.

A.	1.	No. of dwellinghouses overcrowded at the end of the year	2,042
	2.	,, families dwelling therein	2,042
	3.	,, persons dwelling therein	11,717½
B.		,, new cases of overcrowding reported during the year	Nil.
C.	1.	,, cases of overcrowding relieved during the year	Nil.
	2.	,, persons concerned in such cases	Nil.
D.		Particulars of any cases in which dwellinghouses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding	Nil.

Eradication of Bugs.

During the year 1936, in a total of 256 houses, measures for disinfestation were carried out.

Of these, 132 were occupied Council houses and in these cases disinfestation was carried out by Council workmen by means of liquid sprays which in most cases necessitated disturbance of woodwork, etc. The treatment was found to be satisfactory to a certain extent.

One hundred and twenty-four houses which were vacated as a result of the operation of Clearance Orders were in every case cleansed from vermin, prior to demolition, by application of HCN. gas. This work was carried out by experienced private firms under contract to the Council.

In addition to the foregoing definite details, there were numerous dwelling-houses throughout the City which were subjected to dininfestation measures by arrangement between owners and contractors, but no statistics are available in this connection.

All families re-housed in new Council houses have had their furniture and effects treated en route to the new dwellings. HCN. gas was applied to furniture in specially constructed vans and all bedding steam disinfected.

TABLE G. 2.

NEW HOUSES ERECTED AND HOUSES DEMOLISHED IN 1936.

Wards.	Houses erected.		Houses demolished.
Kersal	71	....	—
Albert Park	6	....	—
Mandley Park	13	....	—
St. Matthias'	—	....	—
Trinity	—	....	1
Crescent	—	....	—
Regent	—	....	126
Ordsall Park	—	....	—
Docks	128	....	—
Charlestown	7	....	—
St. Thomas'	—	....	—
St. Paul's	—	....	—
Langworthy	—	....	—
Seedley	—	....	—
Weaste	27	....	—
Claremont	350	....	—
	602	....	127

474 houses have been built by private enterprise.
128 flats ,, ,, ,, ,, the Corporation.

Certificates as to Housing Conditions.

Under the terms of the circular letter issued by the City Treasurer, with reference to the issue by the Medical Officer of Health of certificates to the effect that certain families were not living under sanitary conditions, 127 applications have been made and in 87 cases certificates were issued.

TABLE G. 4.

REGISTER OF WORK DONE—YEAR ENDING DECEMBER 31ST, 1936.

No. of Complaints received		**5797**
Inspections of	Dwellinghouses	**8813**
	,, ,, (under Housing, &c., Act)	**1069**
	Visits *re* Unhealthy Areas	**1083**
	Schools	**475**
	Factories	**42**
	Canal Boats	**99**
	Common Lodging-houses (Day)	**220**
	,, ,, ,, (Night)	**2**
	Sub-let ,, ,, (Day)	**885**
	,, ,, ,, (Night)	**392**
	Seamen's Lodging-houses (Day)	**27**
	,, ,, ,, (Night)	—
	Van Dwellings	**89**
	Tips	**14**
	Bakehouses (Day)	**768**
	Workshops (Day)	**778**
	,, (Night)	**271**
	Domestic Workshops	**427**
	Restaurant Kitchens	**76**
	Outworkers' Premises	**207**
	Ice Cream Shops	**386**
	,, Stalls	**8**
	Fried Fish Dealers	**829**
	Smallpox Contacts	**26**
	Diphtheria Contacts	**18**
	Scarlet Fever Contacts	**66**
	Enteric Fever Contacts	—
	Miscellaneous	**5802**
	Laundries	**25**
	Urinals—Public	**150**
	Stables	**384**
	Re Infectious Diseases	**1203**
	Theatres, Cinemas, &c. (Day)	**84**
	,, ,, (Night)	**45**
	Shops (Shops Act) *re* Half-Day closing	**4389**
	Shops ,, ,, *re* Early Closing	**2413**
	Shops ,, ,, *re* Sanitary arrangements, etc.	**926**
		32,491

REGISTER OF WORK DONE.—*continued.*

Re-inspections		**18652**
Action taken	Sanitary Notices issued	**1977**
	,, ,, complied with	**1778**
	,, ,, cancelled	**38**
	Informal notices issued	**2782**
	,, ,, complied with	**2031**
	,, ,, cancelled	**549**
	Byelaw notices issued	**201**
	,, ,, complied with	**168**
	,, ,, cancelled	**4**
	Salford Improvement Act notices issued	**198**
	,, ,, ,, complied with	**165**
	,, ,, ,, cancelled	**7**
	Ash Accommodation Notices issued	**619**
	,, ,, ,, complied with	**450**
	,, ,, ,, cancelled	**32**
	Workshop Notices issued	**8**
	,, ,, complied with	**5**
	,, ,, cancelled	—
	Sanitary Convenience Notices issued	**9**
	,, ,, ,, complied with	**2**
	,, ,, ,, cancelled	—
	Section 41 P.H.A. Notices issued	**66**
	,, ,, ,, complied with	**61**
	,, ,, ,, cancelled	**1**
Disinfection—Rooms in Houses, etc. Disinfected		**4944**
House Drains	Repaired	**422**
	Reconstructed	**736**
	Trapped	**372**
	Downspouts disconnected from	—
	Blockages removed	**627**
Eaves, Gutters, & Downspouts, Passages and Yards.	Blockages removed	**17**
	Inlets opened	**216**
Water Closets	New, provided	**4**
	Ventilated	—
Ash Receptacles	New, provided	**627**
	Bricked up or demolished	**149**

REGISTER OF WORK DONE.—*continued.*

Limewashed	Lodging-houses	**2**
	,, Sub-let	**6**
	,, Seamen's	—
	Bakehouses	**371**
	Workshops	**4**
	Workshops (Domestic)	—
	Outworkers' premises	—
	Laundries	**11**
	Fried Fish Dealers	**312**
Newly Licensed Common Lodging-houses		**10**
,, ,, Seamen's ,,		**6**
Newly Registered	Lodging-houses Sub-let	**8**
	Workshops	**10**
	,, (Domestic)	—
	Bakehouses	**25**
	Second-hand Goods Stores	**14**
	Ice Cream Shops	**9**
Accumulations Removed	Manure and Refuse	**12**
	Stagnant Water	**2**
Manure Receptacles—New, provided		—
Smoke Nuisance	Observations taken	**1897**
	Notices served	**5**
	Cautionary Notices served	**11**
Passages and Yards	Repaired	**281**
Bundles of Infected Bedding and Clothing	Stoved	**3334**
	Destroyed	**74**
Houses repaired by owners, after Formal Notice		**2329**
,, ,, ,, ,, ,, Informal ,,		**2438**

Destruction of Rats and Mice.

I am indebted to the Director of Public Cleansing, Salford, for the following information, namely :—

During the year the ratcatchers made 6,581 visits to dwellinghouses, schools, shops, stores and other premises, whilst 1,871 live rats were caught.

In many cases structural repairs to property were rendered necessary due to the damage done by rats to sanitary fittings, floors, etc. These repairs were carried out by the agents and owners of the premises.

The percentage of infestation due to defective and disused drains was found to be high. The controlled tips and depôts of the Department are kept under constant supervision and means are taken to prevent the aggregation of rats.

In addition to the continuous work carried out by the two ratcatchers employed by the Department the extra efforts in connection with Rat Week included the following :—

Two weeks prior to Rat Week an advertisement was inserted in the local paper notifying the public of this effort, asking for co-operation and stating that assistance will be given free of charge. This was emphasised by an article on the destruction of rats and mice based on information supplied by this Department.

Large posters were displayed on the hoardings of the City. Handbills were distributed from house to house. The Ministry's poster was exhibited in the display window of the Health Department, on the notice boards of the public parks and libraries, in the windows of shops on the main thoroughfares and on the vehicles of the Department.

Not many new complaints were received during Rat Week as the publicity given the work of rat destruction during the last few years has helped to make the activities of the Department well known ; consequently there is a steady flow of requests for assistance throughout the year.

STATEMENT AS TO HOSPITAL SERVICES AVAILABLE FOR SALFORD RESIDENTS.

A. HOSPITALS PROVIDED BY THE SALFORD CORPORATION.

Name and Situation of Hospital.	Purpose.	Services and Number of Beds provided. Service	Beds. Male.	Female.	Total.	Classification and Number of Medical and Nursing Staffs. Classification.	No.	Arrangements for Employment of Consultants.	Special Departments.	Arrangements for Surgical Operations.	Arrangements for Pathological Examinations.
Hope Hospital, Pendleton, Salford	General	General Medical	96	113	209	Medical Superintendent	1	Consultants appointed as follows: (*a*) Visiting Physician. (*b*) Visiting Specialist in Children's Diseases. (*c*) Visiting Gynæcologist and Obstetrician (*d*) Visiting Orthopædic Surgeon. (*e*) Visiting Surgeons for Diseases of Ear, Nose and Throat. (*f*) Visiting Radiologist (*g*) Visiting Anæsthetist.	X-Ray. Massage. Electro-therapeutics. Ultra-violet radiation. Orthopædic. Pathological. Electro-cardiographic. Out-patients, including Ante and Post-natal Clinics. Ear, Nose and Throat.	Surgical operations for all classes of cases are performed at the Hospital.	All pathological material examined either in the Municipal Laboratory or in the Hope Hospital Laboratory under direction of City Pathologist.
		Surgical	96	52	148	Deputy Medical Superintendent and Resident Surgical Officer	1				
		Children			190	Resident Medical Officer	1				
		Maternity		68	68	Resident Obstetric Officer	1				
		Tuberculosis				Assistant Medical Officers	5				
		Chronic Sick	99	122	221	Matron and Nursing Staff	238				
		Mental	64	88	152						
		Venereal	8	8	16						
		Tonsils and Adenoids (Children)	6	6	12						
		Puerperal Pyrexia									
		Orthopædic	39	14	53						
		Gynæcological		50	50						
		Observation (Ante-natal)		35	35						
		Maternity Cots			56						
		Total			1,210						
Ladywell Sanatorium, Pendleton, Salford	Infectious Diseases	Ordinary Infectious Diseases			217	Medical Superintendent	1	Consultants appointed as follows: (*a*) For cases of Puerperal Fever and Pyrexia. (*b*) Visiting Aural Surgeon. (*c*) Other Consultants called in as required		Surgical operation for affections of the ear, nose and throat are performed at the Sanatorium	Pathological examinations are carried out at the Municipal Pathological Laboratory
		Tuberculosis	36	36	72	Assistant Medical Officers	2				
		Puerperal Fever and Pyrexia		7	7	Matron and Nursing Staff	66				
		Total			296						
Nab Top Sanatorium, Marple, Cheshire	Tuberculosis		62	58	120	Medical Superintendent	1		X-Ray	No facilities provided. Cases requiring surgical treatment are transferred to other institutions.	
						Matron and Nursing Staff	15				
Drinkwater Park Hospital, Prestwich	Smallpox Isolation Hospital		24	24	48	Staffed as required		....	..	.	

Total Number of Beds provided by Salford Corporation..... 1,674

B.—VOLUNTARY HOSPITALS SITUATED IN SALFORD.

Name and Situation of Hospital.	Purpose.	Services and Number of Beds provided. Service.	Beds. Male.	Female.	Total.	Special Departments.
Salford Royal Hospital, Salford.	General	General Surgical	87	88	175	X-Ray. Orthopædic. Massage. Ear, Nose and Throat. Genito-Urinary. Cardiological. Pathological. Artificial Sunlight. Physiotherapeutic. Dental. Ophthalmic. Gynæcological. Pre-mental. Diabetic. Massage.
		General Medical	31	33	64	
		Skin and Genito-Urinary	4	4	8	
		Children's Cots, Medical and Surgical.			13	
		Observation Beds			3	
		Total			263	
Greengate Hospital and Open Air School, Salford.	*Children	Rickets			40	
Total number of beds provided by Voluntary Hospitals in Salford					303	

* Out-Patient Department for Men, Women and Children also provided.

C.—VOLUNTARY HOSPITALS SITUATED OUTSIDE SALFORD BUT USED BY SALFORD RESIDENTS.

Name and Situation of Hospital.	Purpose.	Services and Number of Beds provided. Service.	Beds. Male.	Female.	Total.	Special Departments.
Manchester Royal Infirmary.	General	General Medical	88	104	192	X-Ray (with Light Therapy and Deep Therapy). Massage (with Diathermy, Electro-therapy, Radiant Heat, etc.); Sunlight. Dietetics. Electrocardiographic. Surgical Tuberculosis. Pernicious Anæmia. Venereal Diseases. Ophthalmic. Skin Diseases. Neurological Surgery. Orthopædics. Gynæcology. Plastic Surgery.
		Surgical (including Orthopædic and Neuro surgical)	209	156	365	
		Aural	9	8	17	
		Gynæcological	....	18	18	
		Observation	....	....	9	
		Children under 6 (urgencies)	....	....	13	
		Reserved for Emergency	....	....	26	
		Total			640	
St. Mary's Hospitals, Manchester.	Maternity, Gynæcological and Children.	Maternity	....	101	101	Radium. Massage. Ante-natal and Post-natal. Hormone Clinic. Artificial Sunlight. Venereal Diseases (Out-Patients only).
		Gynæcological	....	112	112	
		Children	....	....	50	
		Total			263	
Royal Manchester Children's Hospital, Pendlebury, Lancs.	Children	Medical	55	55	110	X-Ray. Massage (with Electrical and Gymnastic Apparatus). Artificial Sunlight. Orthopædic. Ear, Nose and Throat Pathological. Dental Clinic } Out-patient Clinics Speech Clinic } in Manchester.
		Surgical	55	55	110	
		Isolation	6	6	12	
		Total			232	
Ancoats Hospital, Manchester.	General	General Surgical	30	47	77	X-Ray. Massage. Pathological. Cardiographic. Orthopædic. Genito-urinary. Venereal Diseases. Neurological.
		General Surgical (Children)	....	....	15	
		General Medical	30	13	43	
		General Medical (Children)	....	..	6	
		Private Wards	....	...	10	
		Total			151	
Manchester Victoria Memorial Jewish Hospital, Cheetham, Manchester.	General	General Medical	7	11	18	X-Ray. Artificial Sunlight. Gynæcological. Ear, Nose and Throat. Ophthalmic. Massage and Electrical. General Surgical. General Medical. Cardiograph.
		Gynæcological	..	8	8	
		General Surgical	15	15	30	
		Ear, Nose and Throat	5	5	10	
		Ophthalmic	..	..	3	
		Children's	4	4	8	
		Pay Beds		..	25	
		Total			102	
Manchester Northern Hospital, Cheetham Hill Road, Manchester.	General	Medical	12	10	22	Dental. X-Ray. Massage. Artificial Sunlight. Pathological. Genito-Urinary. Ear, Nose and Throat.
		Surgical	14	4	18	
		Gynæcological		22	22	
		Children: Medical			33	
		Surgical			18	
		Total			113	
Manchester and Salford Hospital for Skin Diseases, Quay Street, Manchester.	Skin Diseases	Skin Cases	24	*30	54	X-Ray. Artificial Sunlight. Venereal Diseases. Tuberculosis of Skin. Private Wards.
		Total			54	
Manchester Ear Hospital, Grosvenor Square, Oxford Road, Manchester.	Diseases of the Ear, Nose and Throat.	Ear, Nose, Throat and Associated Diseases.	11	11	22	
			Children		9	
		Total			31	
Dental Hospital of Manchester, Oxford Road, Manchester.	Dental Treatment				Nil	Oral Surgery Conservation. Prosthetic. Orthodontic.
Manchester Royal Eye Hospital, Oxford Road, Manchester.	Eye Cases	Ophthalmic	80	48	128	Anæsthetic and Extraction. X-Ray. Pathological. Ophthalmia Neonatorum. Sun-Ray. Pathological Laboratory. Orthoptic. Venereal Diseases.
		Ophthalmic, Children		..	26	
		Ophthalmia Neonatorum (Mothers and Babies).		..	3	
		Private Patients	..	.	9	
		Total			166	
Christie Hospital and Holt Radium Institute, Withington, Manchester.	1. To provide medical and surgical advice and relief for persons suffering from Cancer, Precancerous conditions and chronic ulceration. 2. Thoroughly and scientifically to study the disease in all its stages with a view to the discovery of its causes and of means of prevention and care and Deep X-Ray Treatment 3. Radium Treatment.		52	63	115	Private wards for paying patients Deep X-Ray Therapy. Pathological. Physicist. Radium application and research. Out-patients and follow-up department. Record and Statistical department. Gynæcological Ear, Nose and Throat Neurological. Xeological Plastic Surgery Dental.
Total number of Beds provided by Voluntary Hospitals, outside Salford, used by Salford Residents					1,867	

* Includes 9 Children.

SUMMARY SHOWING INSTITUTIONAL ACCOMMODATION WHICH MAY BE USED BY SALFORD RESIDENTS.

Service.	Institutions provided by Salford Corporation.	Voluntary Institutions in Salford.	Voluntary Institutions outside Salford, but used by Salford residents.	Total.
General Medical	209	64	275	548
General Surgical	148	175	492	815
Children	246	53	375	674
Maternity	68	....	101	169
Tuberculosis	192	....	..	192
Chronic Sick	221	....	.	221
Mental	152	....	...	152
Ordinary Infectious Diseases	217	....	....	217
Puerperal Fever and Pyrexia	7	....	...	7
Smallpox	48	....	...	48
Venereal Diseases	16	...	....	16
Ear, Nose and Throat	12	....	55	67
Gynæcological	50	....	160	210
Skin Diseases, etc	....	8	54	62
Ophthalmic Diseases	....	....	166	166
Ophthalmia Neonatorum	....	....	4	4
Radium Treatment	....	....	115	115
Observation Beds, etc	35	3	35	73
Orthopædic	53	....	....	53
Pay Beds	....	....	25	25
Private Wards	..	....	10	10
	1,674	303	1,867	3,844

NOTE.—It should be clearly understood that apart from the accommodation provided by the Salford Corporation, the accommodation referred to in the above summary is available for the residents of Manchester and neighbouring areas.

Name and Situation of Hospital.	Purpose.
Hope Hospital, Pendleton, Salford.	General Medical, Surgical, Children, Maternity, Tuberculosis, Chronic Sick, Fever, Cancer, Throat, Ear, Nose and Throat, Dermatology, Ophthalmic, Gynæcological, Orthopædic, Physical Defects, Skin, Venereal, Isolation.
Ladywell Institution, Pendleton.	Tuberculosis.
Salford Royal Hospital, Salford.	General.
Salford Royal Hospital, Salford.	Tuberculosis.
Salford Royal Hospital, Salford.	Maternity.
Salford Royal Hospital, Salford.	Children.
Salford Royal Hospital, Salford.	Chronic Sick.
Salford Royal Hospital, Salford.	Fever.
Salford Royal Hospital, Salford.	Cancer.
Salford Royal Hospital, Salford.	Throat, Ear and Nose.
Salford Royal Hospital, Salford.	Orthopædic.
Salford Royal Hospital, Salford.	Ophthalmic.
Salford Royal Hospital, Salford.	Gynæcological.
Salford Royal Hospital, Salford.	Dermatology.
Salford Royal Hospital, Salford.	Venereal.
Salford Royal Hospital, Salford.	Skin.
Salford Royal Hospital, Salford.	Cancer.
Salford Royal Hospital, Salford.	Physical Defects.
Salford Royal Hospital, Salford.	Tuberculosis.
Salford Royal Hospital, Salford.	Isolation.
Total number of beds provided by Salford corporation	

B. VOLUNTARY

Name and Situation of Hospital.	Purpose.
Hope Hospital, Pendleton, Salford.	General Medical, Surgical, Children, Maternity, Tuberculosis, Chronic Sick, Fever, Cancer, Throat, Ear, Nose and Throat, Dermatology, Ophthalmic, Gynæcological, Orthopædic, Physical Defects, Skin, Venereal, Isolation.
Ladywell Institution, Pendleton.	Tuberculosis.
Salford Royal Hospital, Salford.	Tuberculosis.
Salford Royal Hospital, Salford.	Maternity.
Salford Royal Hospital, Salford.	Children.
Salford Royal Hospital, Salford.	Chronic Sick.
Salford Royal Hospital, Salford.	Fever.
Salford Royal Hospital, Salford.	Cancer.
Salford Royal Hospital, Salford.	Throat, Ear and Nose.
Salford Royal Hospital, Salford.	Orthopædic.
Salford Royal Hospital, Salford.	Ophthalmic.
Salford Royal Hospital, Salford.	Gynæcological.
Salford Royal Hospital, Salford.	Dermatology.
Salford Royal Hospital, Salford.	Venereal.
Salford Royal Hospital, Salford.	Skin.
Salford Royal Hospital, Salford.	Cancer.
Salford Royal Hospital, Salford.	Physical Defects.
Salford Royal Hospital, Salford.	Tuberculosis.
Salford Royal Hospital, Salford.	Isolation.
Ashton Hall Sanatorium, Ashton.	Tuberculosis.
Crossfield Private Hospital, Eccles.	Maternity.

(C).—GENERAL PROVISION OF HEALTH SERVICES.

Hospital Services.

The people of Salford avail themselves of the hospital accommodation provided by the Salford Corporation and of the voluntarily provided hospitals of both Salford and Manchester. The interleaved tabulation contains particulars of the hospital services available for Salford residents, distinguishing between hospitals provided by the Corporation and voluntary institutions.

Outdoor Assistance to the Poor.

The amount distributed by way of outdoor assistance to the poor in Salford during the year ending March 31st, 1937, was approximately £187,047.

Particulars relating to the Poor Law Medical Out-relief Districts are set out in the appended tabulation :—

MEDICAL OUT-RELIEF DISTRICTS.

No. of District.	Area served.	District Medical Officer.
1.	*District*—Such portion of the former Township of Salford as is comprised within the following boundary :—Commencing at a point in the River Irwell at the Salford Royal Hospital end of the Crescent, easterly along Whitecross Bank and Chapel Street, thence along St. Stephen Street, King Street, Norton Street, and Greengate to the River Irwell at the Salford Bridge ; thence to the left along the River Irwell and the pre-existing Township boundary to the point first named.	Dr. Stanley Hodgson.
2.	*District*—All that part of the former Township of Salford comprised within the following boundary :—Commencing at Windsor Bridge, and thence along the Manchester, Bury and Bolton Canal to the pre-existing boundary of the Townships of Salford and Pendleton, along such boundary through Peel Park to the River Irwell, along the River Irwell to a point nearest the Crescent, thence along the Crescent and Chapel Street to St. Stephen Street, along St. Stephen Street, King Street, Norton Street, Greengate and Chapel Street to Salford Bridge, to the right along the River Irwell to the Manchester, Bury and Bolton Canal, and along such Canal to the point first named.	Dr. Stanley Hodgson.

MEDICAL OUT-RELIEF DISTRICTS—*continued.*

No. of District.	Area Served.	District Medical Officer.
3.	*District*—All that part of the former Township of Salford comprised within the following boundary, viz. :—Commencing at Regent Bridge, along the centre of Regent Road, Trafford Road, and Broadway, to the site of the old Racecourse, thence along the northern boundary of such site to the Manchester Ship Canal, thence along the said Ship Canal and the River Irwell to the point first named.	Dr. W. Saunderson.
4.	*District*—Commencing at Windsor at the point dividing the former Townships of Pendleton and Salford, thence along the pre-existing Township boundary to the Manchester, Bury and Bolton Canal, along such Canal in a south-easterly direction to the River Irwell, along the River Irwell to Regent Bridge, thence along Regent Road to Trafford Road, along Trafford Road and Broadway and the north-west side of the site of the old Racecourse to the Manchester Ship Canal, along the said Ship Canal to the boundary of the former Townships of Pendleton and Salford; and thence along such boundary to the point first named.	Dr. W. Saunderson.
5.	*District*—The whole of the former Township of Pendleton.	Dr. J. Garlick.
6.	*District*—The whole of the former Township of Broughton.	Dr. T. Waycott Chaff.

This service is administered by the Public Assistance Committee, and I am informed by the Public Assistance Officer that no changes of note in its administration have occurred during the year.

Local Government Act, 1929.

Further consultations with representatives of Voluntary Hospitals under Section 13 of the Local Government Act, 1929, did not take place during 1936, as no additional provision for hospital accommodation was made during the year.

Vaccination.

No primary vaccinations or re-vaccinations were performed by the Medical Officer of Health under the Public Health (Smallpox Prevention) Regulations, 1917, during 1936.

The Public Vaccinators for Salford and their districts are as follows :—

Description.	District.	Public Vaccinator.
Salford (No. 1) District.	Such part of the Township of Salford as is comprised within the following boundary, namely : Commencing at the former Township boundary between Pendleton and Salford at Broad Street ; along Windsor and the Crescent to Oldfield Road; along Oldfield Road to Regent Road ; along Regent Road to Regent Bridge ; thence in a northerly and westerly direction along the River Irwell to the boundary between the former Townships of Salford and Pendleton near Peel Park ; thence along the boundary between such former Townships to the point first named.	Dr. V. Newton, 227, Oldfield Road, Salford, 5.
Salford (No. 2).....	Such part of the Township of Salford as is comprised within the following boundary, namely : Commencing at the boundary of the former Townships of Salford and Pendleton at New Windsor, Salford ; along New Windsor and the Crescent to Oldfield Road ; along Oldfield Road to Regent Road ; along Regent Road to the River Irwell at Regent Bridge ; thence in a southerly and westerly direction along the River Irwell and the Manchester Ship Canal to the boundary between the former Townships of Pendleton and Salford ; thence along the boundary between such former Townships to the point first named.	Dr. W. Saunderson, 1, Haworth Street, Cross Lane, Salford, 5.

Description.	District.	Public Vaccinator.
Pendleton District (Salford Township).	The whole of the former Township of Pendleton.	Dr. E. A. Ferguson, 90, Fitzwarren St., Pendleton.
Broughton District (Salford Township).	The whole of the former Township of Broughton.	Dr. Thomas Waycott Chaff, "Limefield," 194 Broughton Lane, Broughton, Salford, 7.

It is with great regret that I have to report the death of Dr. T. Waycott Chaff, which occurred on 26th November, 1936.

Mr. A. Sharrocks was Vaccination Officer for the whole of Salford during 1936.

Particulars as to vaccination carried out in Salford during the year 1936 are as follows :—

PARTICULARS AS TO VACCINATION DURING 1936.

District.	No. of cases in birth lists.	No. of certificates of vaccination received, irrespective of district of birth.	No. of certificates of postponement owing to			No. of statutory declarations under Section 1 of the Vaccination Act, 1907.	No. of certificates of insusceptibility or of having had smallpox.	No. of cases.		No. of entries in list sent to public vaccinator.
			Health of child.	Condition of house.	Prevalence of infectious disease.			Parents removed out of district.	Otherwise not found.	
North	843	697	107	....	....	163	4	30	18	305
South	894	727	109	....	....	168	3	17	19	280
West	1,246	868	94	....	....	249	7	38	24	302
Total	2,983	2,292	310	....	....	580	14	85	61	887

SECTION IIA.

Atmospheric Pollution.

Atmospheric Deposit.

Examination of the atmospheric deposit obtained from the four special gauges has been continued throughout the year.

The four deposit gauges which collect the material for analysis are located as follows :—

(1) Peel Park, which is fairly centrally situated within the City.

(2) Ladywell Sanatorium and Isolation Hospital, which is just within the City boundary to the west.

(3) Drinkwater Park Hospital, which is a short distance beyond the City boundary to the north-west.

(4) Nab Top Tuberculosis Sanatorium, Marple, Cheshire, which is some ten miles distant from Manchester Town Hall in a south-easterly direction.

In last year's Report, tables were published setting forth the quantity and the nature of atmospheric deposit recorded at three of the above Stations* in each of the 10 years 1926 to 1935 inclusive.

A comparison of the figures for the first and second halves of this 10 year period revealed a considerable improvement in the latter half; the average yearly deposit of total solids being some thirty per cent. lower than the average for the first period. Various factors were considered to have had some influence in bringing about this desired improvement, including a lessened consumption of coal in domestic fires during a period of more genial years, and the considerable increase in the use of gas and electricity for cooking and heating. In addition, one might mention a lessened output of factory smoke, through industrial depression. The recent improvement in industry, along with decrease in unemployment, might be expected to have the effect of increasing atmospheric pollution from both factory and domestic sources, and it is interesting to compare the deposit figures for the two years 1935 and 1936 from all four observation stations, as follows :—

*Peel Park, Marple Sanatorium and Ladywell Sanatorium.

DEPOSIT GAUGE OBSERVATIONS—YEARS 1935 AND 1936.

METRIC TONS PER SQUARE KILOMETRE.

Station.	Year.	Insoluble Matter.			Soluble Matter.		Total Solids.	Included in Soluble Matter.			Acidity	p.H.
		Tar	Other Carbonaceous Insolubles.	Insoluble Ash.	Insoluble Loss on Ignition.	Soluble Ash.		Sulphates.	Chlorine.	Ammonia.		
Marple	1935	0.06	0.67	0.80	0.89	1.25	3.68	0.58	0.59	0.02	0.21	4.7
Do.	1936	0.05	0.62	0.76	0.75	1.22	3.40	0.58	0.67	0.02	0.24	4.5
Peel Park	1935	0.22	2.03	3.91	1.11	2.40	9.67	0.88	0.74	0.01	0.28	4.4
Do.	1936	0.26	2.12	4.08	1.54	2.87	10.87	1.05	1.00	0.01	0.33	4.5
Ladywell Sanatorium	1935	0.12	2.03	2.85	1.73	2.38	9.13	1.17	0.82	0.03	0.34	4.3
Do.	1936	0.13	1.98	2.69	1.97	2.95	9.72	1.25	1.25	0.03	0.53	4.2
Drinkwater Park	1935	0.11	1.25	1.85	0.96	1.71	5.88	0.69	0.78	0.02	0.32	4.3
Do.	1936	0.12	1.66	2.33	1.20	2.13	7.44	1.07	1.11	0.03	0.37	4.4

From the foregoing tabulation it will be at once seen that during the past year there has been some increase of total atmospheric deposit at all of the stations except Marple.

The increase in pollution has been particularly noticeable at Drinkwater Park : here, in addition to pollution from the neighbouring electricity station working at times under pressure, there has been an extension in other nearby industries with probable increased emission of impurities, including Chlorine Gas.

A recent slight increase in the amount of atmospheric pollution, attributable to increased industrial activity, has been noted in certain other parts of the Country. (See 22nd Report on the Investigation of Atmospheric Pollution, issued by the Department of Scientific and Industrial Research).

Sulphur Pollution.

The presence of sulphurous acid in the atmosphere is largely due to the burning of solid fuel containing sulphur, such as ordinary coal and its carbonised derivatives. The concentration of this acid in the air we breathe varies very greatly according to season and weather conditions. For instance, during the year 1936, the concentration was lowest in August, during which month the daily average proportion of sulphur dioxide in the air was less than 0.039 parts per million. On the other hand, the daily average proportion for November was 0.093 parts per million, and on one particularly foggy day in this month, the concentration reached a figure of 0.47 parts per million. To put it more simply, the amount of sulphurous acid present in the air of Salford was twelve times as great on this foggy November day as it was during the average August day. The markedly increased concentration of sulphurous acid which occurs in a smoke fog explains the irritant effect on the respiratory passages. And so it is that, after a succession of fog days, we always find an increase in deaths from bronchitis : hence bronchitis mortality may be regarded as the index of atmospheric pollution.

Pollution from Motor Vehicles.

In addition to the increased pollution of our highways by the ever-growing volume of ordinary motor traffic, a new terror has of late years arisen in the form of the exhaust from the heavy oil engine, now almost universally adopted for our passenger buses and other heavy motor vehicles. This heavy oil engine exhaust constitutes a real menace to public health, inasmuch as combustion is not nearly so complete as in the petrol engine. The intermediate products of this partial combustion consist not only of oily fumes, but also of certain organic compounds, such as aldehydes, which are very irritating to the respiratory tract, and particularly to the larynx. The nausea which so many people experience after inhaling such pollution may only be a temporary discomfort : more serious, however, is the irritant effect on the respiratory tract, and particularly the throat discomfort and hoarseness experienced by the more susceptible of the population.

It would seem to be fairly well established that this irritant exhaust can set up a definite laryngitis. Time alone will show whether such frequently occurring irritation may not ultimately bring about an increase in the incidence

of respiratory malignant disease. The writer understands that research bearing on this point is at the present time being conducted within the walls of the neighbouring university. Complaints as to the effects of this exhaust have reached the writer from different sources, including medical practitioners, transport workers, bus passengers, and pedestrians. The local passenger buses are serious offenders, and the motorist who follows immediately behind such vehicles often receives a concentrated dose of noxious fumes from the exhaust. In a recent court case in a northern town, a motorist, summoned for exceeding the speed limit, successfully pleaded that he was trying to pass such a bus as he knew that otherwise the fumes would make him sick !

In some instances it would seem that the nuisance could be considerably lessened by the exercise of more care on the driver's part in the use of the accelerator.

In any case, it behoves all concerned to consider carefully whether the undoubted saving in fuel cost through the use of oil propelled vehicles is sufficient justification for the added discomfort and risk to the health of the public in such congested areas as ours.

Daylight Measurement.

Measurement of daylight by the potassium iodide method has been continued at the same four stations as hitherto, namely :—

(1) Regent Road, Salford. (Health Offices).
(2) Nab Top Tuberculosis Sanatorium, Marple.
(3) Ladywell Sanatorium and Isolation Hospital. (Salford and Eccles boundary).
(4) Drinkwater Park Hospital, Prestwich.

Details of the results of these tests are set forth in the Section of this Report dealing with the City Analyst's Department (page 183), where also will be found an account of the results of daylight measurement as obtained by alternative methods, including the following :—

(1) The Nitrate Method.
(2) The Photographic Method of Dr. Ashworth.
(3) The Photo-electric Method (Integrating Solarimeter).
(4) The Campbell-Stokes bright sunshine recorder.

Tabulations and graphs setting forth the results obtained by all these different methods are also given.

The results obtained by the above alternative methods lend support to the view that the potassium iodide method gives quite a reliable measurement of daylight : it is, moreover, convenient for the carrying out of simultaneous observations at different stations.

The following table shows the amount of daylight received at the four stations, compared with the average figures for the previous five years ;—

MEASUREMENT OF DAYLIGHT.

POTASSIUM IODIDE METHOD.

YEARLY TOTAL IN MILLIGRAMMES OF IODINE.

Period of Observation.	Regent Road.	Nab Top Sanatorium, Marple.	Ladywell Sanatorium.	Drinkwater Park.
Year 1936.....	1651.8	2273.4	1544.4	1676.1
Yearly average 1932-1936	1693.9	2305.1	1958.0	1896.9

The striking facts in the above table are (1) the close agreement of the 1936 figure with the five year's average in the case of Regent Road and Nab Top Sanatorium, and (2) the substantial falling off in the amount of daylight received at Ladywell Sanatorium and Drinkwater Park during 1936.

The decrease in amount of daylight at the above two stations corresponds to increased pollution in each neighbourhood, as revealed by the deposit gauges, and may be to some extent consequent upon increased industrial activity near each locality.

On the other hand, Regent Road station is in the midst of an area chiefly occupied by working class dwellings, and Nab Top Sanatorium is fairly clear of both dwellings and industries.

Ultra Violet Light.

Whilst, as we have seen, the Potassium Iodide Method gives a reliable measurement of the amount of visible daylight received, it does not indicate how much of the " medicinally active " ultra violet light is reaching us.

Although it is safe to assume that the more visible light we receive, the more the medicinal rays also, it does not follow that these two kinds of light are always in the same proportion.

As a matter of fact, there is some reason to suspect that in the depths of winter the amount of medicinal rays received may be almost negligible.

The methods hitherto in use for trying to ascertain the figure for medicinal rays have not proved altogether satisfactory, and it is hoped that the newer photo-electric method (integrating solarimeter) may be adapted to give us the desired information, provided suitable " screens " can be obtained. Experiments with this instrument are at the present time being carried out in the Municipal Laboratories, and results obtained will be published at a future date.

SECTION III.

Infectious Diseases.

The number of notifications of cases of infectious disease received during 1936 was 2,488, as compared with 2,430 received during 1935. These figures are not truly comparable, however, on account of the fact that Measles only became compulsorily notifiable in Salford as from 15th May, 1936. During 1936, the number of cases of Measles notified was 205, and the net comparison, therefore, between 1936 and 1935, so far as the other notifiable diseases are concerned, is 2,283, as compared with 2,430. This reduction is accounted for principally by the following decreases :—

Number of cases notified.	1935.	1936.
Diphtheria	690	589
Erysipelas	114	86
Scarlet Fever	587	543
Pulmonary Tuberculosis	366	314

On the other hand, however, there was an increase of 100 in the number of cases of Primary Pneumonia notified during 1936, as compared with 1935, nearly all of which occurred in children up to the age of 15. It is of some significance that this increase occurred in the period immediately subsequent to the very foggy weather which was experienced during December, 1935.

I believe the continued fall in the number of cases of diphtheria to be due to a certain extent to the protective work which has been carried out in the City since 1929, and which culminated in the appointment during 1935, for one year, of a whole-time immunising officer. A special report upon the results of this officer's work appears in page 116 of this Report.

Attention must also be drawn to the continued fall in notifications of Pulmonary Tuberculosis, which reached a new low level during 1936.

Details of the number of cases of infectious disease notified are given in Tables 1 and 2 (pages 68 and 69).

The usual methods, described in previous Reports, for the prevention of the spread of infectious diseases were continued. School teachers, in addition, are encouraged to report cases of non-notifiable disease, which are at once investigated by the School Medical Officers. Diphtheria Antitoxin is supplied immediately, free of charge, to any Medical Practitioner who asks for it. A similar arrangement in respect of Scarlet Fever Antitoxin was instituted in May, 1932. These arrangements are used freely by Salford Medical Practitioners.

Cases of infectious disease which cannot be isolated at home are removed to the Corporation's Infectious Diseases Hospital, the Ladywell Sanatorium (for detailed report upon this Institution see pages 92 to 114). The disinfection of premises in which cases of infectious disease have occurred is carried out by a special staff of disinfectors. Bedding and clothing which have been exposed to infection are disinfected at the Corporation's Disinfecting Station at Mode Wheel ; details of the work carried out at this Station appear on pages 37 to 39.

TABLE I. 1.

CASES OF INFECTIOUS DISEASES NOTIFIED DURING THE YEAR 1936.

NOTIFIABLE DISEASES.	Cases notified in Whole District.								Total Cases notified in each Ward.																	Cases removed to Hospital.
	At All Ages.	At Ages—Years.							Albert Park.	Charlestown.	Claremont.	Crescent.	Docks.	Kersal.	Langworthy.	Mandley Park	Ordsall Park.	Regent.	St. Matthias'.	St. Paul's.	St. Thomas'.	Seedley.	Trinity.	Weaste.	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and upwards.																		
Smallpox	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Diphtheria (including Membranous croup)	589	10	165	327	64	19	4	....	25	77	8	61	20	29	58	46	38	26	38	32	42	19	25	45	580
Erysipelas	86	1	1	5	10	24	34	11	8	5	1	5	3	8	9	3	7	4	6	6	9	1	5	6	50
Scarlet Fever	543	4	147	334	43	15	....	....	39	41	24	35	23	47	46	43	35	41	18	37	35	19	17	43	486
Typhus Fever	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Enteric Fever	3	....	....	....	1	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1	1	3
Continued fever	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Relapsing fever	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Puerperal fever	11	....	....	....	4	7	....	....	1	....	....	1	....	....	1	2	2	2	1	....	....	....	....	1	7
Puerperal Pyrexia	18	....	....	....	4	14	....	....	1	1	1	....	2	3	1	....	1	....	2	1	....	2	1	2	3
Cholera	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Cerebro-Spinal Meningitis	22	2	6	10	3	1	....	....	2	2	....	1	1	1	....	1	1	1	2	5	1	....	....	4	12
Acute-Poliomyelitis	5	1	2	2	....	....	....	....	....	1	....	....	....	....	....	1	....	....	....	1	1	....	1	....	1
Anthrax	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Glanders	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Ophthalmia Neonatorum	17	17	....	....	....	....	....	....	5	....	....	1	1	....	....	1	2	1	1	....	2	....	3	....	1
Pulmonary tuberc'lsis	314	....	2	13	93	122	72	12	23	22	18	26	10	14	21	18	17	25	13	20	21	11	31	24	622
Other forms of tuberculosis	103	5	10	38	23	19	6	2	9	10	6	5	2	5	3	9	7	8	6	11	10	3	6	3	60
Malaria	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Dysentery	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Acute Primary Pneumonia	530	41	126	123	61	93	70	16	28	43	14	45	18	12	40	25	27	52	41	50	55	9	45	26	54
Influenzal Pneumonia	28	....	....	4	3	11	9	1	1	3	2	2	....	....	1	....	....	1	3	6	2	....	4	3	....
Encephalitis Leth	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Acute Polio Encephalitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pemphigus Neonatorum	14	14	....	....	....	....	....	....	2	2	....	1	....	1	....	1	2	1	....	1	1	....	1	1	....
Measles	205	10	64	120	8	3	....	....	24	7	5	7	17	....	19	3	3	7	29	19	11	4	28	22	15
Total	**2488**	**105**	**523**	**976**	**317**	**330**	**195**	**42**	**168**	**214**	**79**	**190**	**97**	**120**	**199**	**153**	**142**	**169**	**160**	**189**	**191**	**68**	**168**	**181**	**1894**

SHOWING THE NUMBER OF CASES OF INFECTIOUS DISEASE NOTIFIED TO THE HEALTH DEPARTMENT DURING THE YEARS 1883 TO 1936.

Year.	Small-pox.	Scarlet Fever.	Diphtheria.	Fever.					Erysipelas.	Cholera.	Plague.	Anthrax.	Glanders.	Cerebro-Spinal Meningitis.	Acute Poliomyelitis.	Ophthalmia Neonatorum.	Measles.	Tuber-culosis.		Total.
				Enteric.	Typhus.	Con-tinued.	Relapsing.	Puerperal.										Pul-monary.	Non-Pul-monary.	
1883	6	805	81	293	14	....	....	21	....	....	....	....	....	....	....	....	....	....	....	1220
1884	5	1154	99	422	35	....	....	14	....	....	....	....	....	....	....	....	....	....	....	1729
1885	11	632	54	205	32	....	....	15	....	....	....	....	....	....	....	....	....	....	....	949
1886	....	1536	41	288	5	....	....	12	....	....	....	....	....	....	....	....	....	....	....	1882
1887	4	1427	83	368	7	....	....	11	....	....	....	....	....	....	....	....	....	....	....	1900
Average 5 years	**5**	**1111**	**72**	**315**	**19**	....	....	**15**	....	....	....	....	....	....	....	....	....	....	....	**1537**
1888	52	1128	175	572	31	....	....	26	....	....	....	....	....	....	....	....	....	....	....	1984
1889	....	1283	691	485	3	....	....	14	....	....	....	....	....	....	....	....	....	....	....	2476
1890	....	985	704	383	6	4	....	22	76	....	....	....	....	....	....	....	....	....	....	2180
1891	....	483	231	377	1	6	....	13	53	....	....	....	....	....	....	....	....	....	....	1164
1892	7	865	231	347	5	5	....	26	86	....	....	....	....	....	....	....	....	....	....	1572
Average 5 years	**12**	**948**	**406**	**433**	**9**	**3**	....	**20**	**43**	....	....	....	....	....	....	....	....	....	....	**1874**
1893	168	865	261	563	5	12	....	30	147	....	....	....	....	....	....	....	....	....	....	2051
1894	35	1043	242	316	1	14	....	21	130	....	....	....	....	....	....	....	....	....	....	1802
1895	4	1167	194	382	....	11	....	19	111	....	....	....	....	....	....	....	....	....	....	1888
1896	2	1579	158	291	7	12	....	24	114	....	....	....	....	....	....	....	....	....	....	2187
1897	....	714	103	291	....	14	....	13	121	....	....	....	....	....	....	....	....	....	....	1256
Average 5 years	**42**	**1074**	**192**	**369**	**3**	**13**	....	**21**	**125**	....	....	....	....	....	....	....	....	....	....	**1836**
1898	....	659	97	367	16	14	....	31	146	....	....	....	....	....	....	....	....	....	....	1330
1899	....	723	184	273	3	20	....	26	153	....	....	....	....	....	....	....	....	....	....	1382
1900	6	1317	309	335	2	8	....	21	179	....	....	....	....	....	....	....	....	....	....	2177
1901	....	1320	420	317	1	8	....	33	230	....	....	....	....	....	....	....	....	....	....	2329
1902	23	780	292	207	43	6	....	16	164	....	....	....	....	....	....	....	....	....	....	1531
Average 5 years	**6**	**960**	**260**	**300**	**13**	**11**	....	**25**	**174**	....	....	....	....	....	....	....	....	....	....	**1750**
1903	175	737	335	178	....	1	....	13	161	....	....	....	....	....	....	....	....	....	....	1600
1904	57	1043	422	202	10	7	....	21	168	....	....	....	....	....	....	....	....	....	....	1930
1905	3	960	363	142	....	7	....	26	176	....	....	....	....	....	....	....	....	....	....	1677
1906	....	904	432	225	....	1	....	21	142	....	....	....	....	....	....	....	....	....	....	1725
1907	8	1044	384	92	....	5	....	23	136	....	....	....	....	....	....	....	....	356	....	2048
Average 5 years	**49**	**938**	**387**	**168**	**2**	**4**	....	**21**	**157**	....	....	....	....	....	....	....	....	....	....	**1796**

TABLE I. 2.—*Continued.*

Year.	†Chicken-pox.	Small-pox.	Scarlet Fever.	Diphtheria.	Fever.				Puerperal Pyrexia	Pemphigus. Neonatorum.	Erysipelas.	Anthrax.	Cerebro-Spinal Meningitis.	Acute Poliomyelitis.	Ophthalmia Neonatorum.	*Measles.	Tuber-culosis.		Trench Fever.	Malaria.	Acute Polio Encephalitis.	Dysentery.	Acute Primary Pneumonia.	Influenzal-Pneumonia.	Encephalitis Lethargica.	Total.
					Enteric.	Typhus.	Con-tinued.	Puerperal.									Pul-monary.	Non-Pul-monary.								
1908	....	....	1341	629	181	....	7	27	....	....	127	....	....	....	....	....	563	....	....	....	....	....	....	....	....	2875
1909	....	....	1577	562	138	....	2	26	....	....	182	....	....	....	....	....	581	....	....	....	....	....	....	....	....	3068
1910	....	....	909	333	113	....	....	24	....	....	129	....	....	....	....	....	651	....	....	....	....	....	....	....	....	2159
1911	....	....	911	375	108	....	1	24	....	....	217	....	....	....	....	....	714	....	....	....	....	....	....	....	....	2350
1912	....	....	541	242	76	....	7	26	....	....	181	....	1	29	....	....	1073	....	....	....	....	....	....	....	....	2206
Average 5 years	....	....	**1056**	**428**	**123**	....	**3**	**25**	....	....	**167**	....	....	....	....	....	**716**	....	....	....	....	....	....	....	....	**2532**
1913	....	4	1224	336	113	....	1	17	....	....	203	3	4	2	....	....	1206	503	....	....	....	....	....	....	....	3616
1914	....	1	2336	352	63	....	....	20	....	....	248	1	3	5	80	....	1126	236	....	....	....	....	....	....	....	4471
1915	....	1	997	236	84	....	....	23	....	....	172	....	9	7	97	....	816	195	....	....	....	....	....	....	....	2637
1916	....	8	442	204	47	....	....	13	....	....	124	....	9	1	60	2065	745	241	....	....	....	....	....	....	....	3959
1917	....	....	200	183	40	....	....	2	....	....	91	....	2	2	43	3100	575	213	....	....	....	....	....	....	....	4401
Average 5 years	....	**3**	**1040**	**252**	**69**	....	**1**	**15**	....	....	**167**	**1**	**5**	**3**	**70**	**2582**	**893**	**278**	....	....	....	....	....	....	....	**3817**
1918	....	....	289	148	42	....	....	17	....	....	92	....	2	2	53	766	556	143	....	....	....	....	....	....	....	2110
1919	....	4	663	211	20	....	....	32	....	....	131	....	6	3	85	2689	583	107	2	117	....	56	....	365	4	5078
1920	....	1	1124	334	49	....	1	40	....	....	135	....	10	1	116	....	574	120	....	42	....	8	....	230	6	2791
1921	....	....	1746	313	41	....	2	19	....	....	146	....	9	....	81	....	553	102	....	11	....	1	....	394	7	3425
1922	....	....	1275	359	37	....	....	25	....	....	141	....	4	....	72	....	510	101	....	6	....	....	....	426	1	2957
Average 5 years	....	**1**	**1019**	**273**	**37**	....	**1**	**26**	....	....	**129**	....	**6**	**1**	**81**	**1727**	**555**	**115**	**1**	**35**	....	**13**	....	**283**	**4**	**3272**
1923	....	....	868	304	27	....	....	22	....	....	98	1	5	1	57	....	547	125	....	4	....	1	114	86	8	2268
1924	....	....	403	286	26	....	....	18	....	....	89	....	4	1	56	....	557	87	....	1	2	1	461	138	59	2189
1925	1145	....	510	376	30	....	....	17	....	....	134	....	2	1	60	....	507	132	....	1	1	....	409	132	27	3484
1926	....	....	720	533	10	....	....	20	12	24	140	....	3	4	50	....	532	123	....	1	4	....	363	99	13	2651
1927	....	1	631	507	9	....	....	7	27	16	120	....	5	4	48	....	573	148	....	2	....	2	465	158	17	2740
Average 5 years excluding chicken pox	....	**1**	**626**	**401**	**20**	....	....	**17**	**20**	**20**	**116**	**1**	**4**	**2**	**54**	....	**543**	**123**	....	**2**	**1**	**1**	**362**	**123**	**25**	**2437**
1928	....	5	822	425	20	....	1	19	28	11	139	....	13	....	55	....	454	166	....	1	....	....	458	80	12	2709
1929	....	....	635	678	9	....	....	16	18	10	150	....	5	2	35	....	522	112	....	....	....	....	658	168	9	3027
1930	....	7	679	736	25	....	1	13	30	6	158	....	2	....	33	....	454	130	....	....	....	....	422	49	8	2753
1931	....	....	478	582	7	....	....	18	25	27	113	....	4	....	13	....	446	139	....	....	....	....	486	120	3	2461
1932	....	....	423	727	16	....	....	23	23	21	99	....	7	4	16	....	472	124	....	....	1	2	466	43	3	2470
Average 5 years	....	**2**	**607**	**630**	**15**	....	**1**	**18**	**25**	**15**	**132**	....	**6**	**1**	**30**	....	**470**	**134**	....	**1**	**1**	**1**	**498**	**92**	**7**	**2684**
1933	....	....	582	759	7	....	....	21	38	6	125	....	13	1	18	....	464	122	....	....	....	1	423	124	2	2706
1934	....	....	547	888	3	....	....	17	32	5	122	....	14	....	14	....	425	135	....	1	....	....	494	15	3	2715
1935	....	....	587	690	8	....	....	19	27	9	114	....	11	....	28	....	366	93	....	....	....	2	430	45	1	2430
1936	....	....	543	589	3	....	....	11	18	14	86	....	22	5	17	205	314	103	....	....	....	....	530	28	....	2488

[illegible] in Salford 1916 to 1919 and from May 15th, 1936. † Chicken-pox notifiable in Salford, January 22nd to December 31st, 1925.

TUBERCULOSIS DEPARTMENT.

Annual Report for 1936.

The Tuberculosis Dispensary is situated at Nos. 145 and 147, Regent Road, Salford, and consists of two consulting rooms with waiting and dressing rooms attached, X-Ray and dark rooms and a room set apart and specially fitted up for the performance of Artificial Pneumothorax Refills, Gas Replacements, etc., which is necessary owing to the increasing number of patients undergoing collapse therapy. There are no branch dispensaries or visiting stations. The Staff consists of two Medical Officers, five Health Visitors and three Clerks.

In addition to the Dispensary work the Tuberculosis Officers are responsible for the treatment of Tuberculous patients at Ladywell Sanatorium (72 beds) and the Senior Tuberculosis Officer visits the Municipal (Hope) Hospital every week for the purpose of consulting with the Medical Staff as to the diagnosis of suspected cases of Tuberculosis and to recommend the most suitable treatment.

Since the advent of Hope Hospital to the control of the Health Committee of the City Council in April, 1935, it has at last become possible to bring about the centralised control of all cases of Tuberculosis.

During 1936 it was decided to close the wards at Hope Hospital to cases of Pulmonary Tuberculosis and transfer them to Ladywell Sanatorium. All known cases of this type requiring Hospital treatment are now admitted to Ladywell Sanatorium only and any case of Pulmonary Tuberculosis found in Hope Hospital is transferred as soon as possible.

(a) Patients Referred for Examination.

Eight hundred and one (801) patients (including non-pulmonary cases) were referred to the Tuberculosis Officers for examination by General Practitioners, School Medical Officers, and local Hospitals during 1936. Although the Tuberculosis Officers now see more early cases of disease than formerly, there are still far too many patients seen for the first time where the disease is so advanced that no treatment can be of lasting value. It is only by the co-operation of the General Practitioners that the Tuberculosis Officers can deal with cases in their earliest and, therefore, most curable stage.

The relations between the General Practitioners of the City and the Dispensary Medical Staff are most cordial and every encouragement is given to send all suspected cases to the Dispensary for examination. A full report of the condition found after physical and X-Ray examination is sent to the Doctor concerned, and it has been possible to give invaluable assistance in diagnosing not only lesions of the chest and other organs caused by tuberculosis, but many other non tuberculous lesions of the chest. This is of great value to Practitioners in the treatment of such cases.

A large majority of the patients referred for examination are seen before notification.

Since the regular use of X-ray examinations it has often been found that a definite tuberculous lesion can be present in a patient's chest without causing any symptoms noticeable to the person affected. When such lesions are found it is sometimes extremely difficult or impossible to make the patient understand the necessity for entering a Sanatorium, or at least giving up work for a time until there is X-ray evidence of definite retrogression of the lesion. It is even more remarkable that Pulmonary Tuberculosis can reach widespread distribution in the lungs without producing a sufficient degree of illness to cause the person to seek the advice of a Doctor. Consequently the disease has often reached an advanced stage before they are seen by a General Practitioner or Hospital. At the same time there is no doubt that the thought of loss of employment prevents many patients from seeking early advice.

Improvement in this respect can only be brought about by propaganda work and all opportunities are taken by Tuberculosis Officers to give lectures and talks to various local associations and by window displays at the Health Office to bring before the Public a knowledge of the early signs of tuberculosis.

At the same time it cannot be too strongly emphasised that inadequate medical examination when the patient consults his Doctor is bound to result in failure to recognise tuberculosis at an early or curable stage. The percentage of cases of Pulmonary Tuberculosis not notified before death during 1936 is 7.38, a slight increase on last year's figures and there is also a slight increase in those fatal cases notified within three months of death.

There is reason to believe that some patients in a superior social position do not wish the fact that they are suffering from tuberculosis to be known to the public authorities. From time to time efforts are made to bring to the notice of the Medical Practitioners of the City that it is their statutory duty under the Public Health Regulations to notify all cases of tuberculosis as soon as they come to their notice.

A point of first importance, and one that is frequently neglected, is the sending of samples of patient's sputum for examination for the presence of tubercle bacilli in all cases of persistent cough which do not yield early to ordinary treatment.

It is satisfactory to note that improvement is still maintained in the sending of sputa for examination. One thousand three hundred and twenty-six (1326) samples of sputum were examined in 1936, as against one thousand and eleven (1011) in 1935.

All sputum examinations desired by Medical Practitioners are made free of charge at the Municipal Pathological Laboratory and special sterile metal containers are provided for the collection of specimens.

(b) Routine Procedure.

When a patient is notified to this Department by a Medical Practitioner as suffering from tuberculosis in any form whatever, the home of such patient is immediately visited by one of the Health Visitors. Precautions as to the likelihood of the spread of infection, the desirability of separate sleeping accommodation, etc., are advised, and instructions given regarding periodical disinfection of walls, bedding and utensils.

The examination of contacts, especially in the case of adolescents, is of the first importance and every endeavour is made by the Health Visitors to induce all contacts to attend at the Dispensary for examination. Unfortunately most of these above school age are working and can only be examined at an evening clinic as they refuse to take time off work and so lose money for an examination which they consider to be of little importance. We consider that X-Ray examination of contacts should also be carried out and this is done at the Dispensary in all cases.

The routine examination of all child contacts is of much less importance than in the case of adolescents but this is carried out as far as possible. Three hundred and seventy one (371) such contacts were examined last year. Four of these were found to be suffering from pulmonary tuberculosis.

It happens not infrequently that a diagnosis cannot be made on first examination of a patient at the Dispensary, and in all such cases the patients are re-invited to attend the Dispensary periodically until a definite diagnosis is made.

In some cases of advanced disease where removal to an Institution for treatment is impracticable, and adequate nursing is impossible under the patient's home conditions, arrangements are made with the District Nursing Association, and the patients are visited daily (in some cases twice daily) in their homes by a trained nurse. In the case of patients in poor circumstances and recommended by the Tuberculosis Officers as being suitable for the granting of extra nourishment, arrangements are made with milk dealers in the City for milk and eggs to be supplied each day.

The usual types of cases receiving extra nourishment are : (*a*) patients who have received an adequate course of sanatorium treatment and whose medical condition is such that, with the grant of extra nourishment, they may be expected to maintain or recover full working capacity ; and (*b*) patients in whose cases ultimate arrest of the disease may reasonably be anticipated, and who are waiting for admission to a sanatorium.

Although unemployment has improved during the past year there have been many patients requiring extra nourishment and although the amount of money allowed has been increased for this purpose the sum is still inadequate to assist all who require it.

It is found that when patients are discharged from the Sanatorium where they have been receiving adequate nourishment to homes where the food supply is below normal, they soon begin to lose weight, their resistance is lowered, and the disease is very liable to become active again.

(c) X-Ray Examination.

The efficiency of a Tuberculosis Dispensary is greatly enhanced by its equipment with a modern X-Ray installation. A powerful set (100 M.A. single valve unit) is installed at the Dispensary, with all necessary accessories, and X-Ray examinations are made in large numbers.

Every new case sent for investigation is carefully screened after physical examination, and in all cases a skiagram of the chest or other part is taken.

This method of examination is an invaluable aid, not only for purposes of diagnosis, but in obtaining information as to the real extent of the disease in the lungs, bones or joints of the patient. It is also of great value in determining the results of treatment. Two thousand and sixty eight X-Ray examinations were made last year. The introduction of paper films which cost only 50 per cent. of the ordinary films is reducing the expense of X-Ray work and for certain purposes they give admirable results. X-Ray examinations have been found of great value to General Practitioners in the differentiation of other chronic diseases of the lung simulating tuberculosis, many of which in the past have been diagnosed as cases of pulmonary tuberculosis. It should also be noted that considerable time is now saved in making a definite diagnosis of chest diseases, and doubtful cases are not required to be kept under observation for periods of longer than one or two months before a final decision can be made.

Much public money and loss of the patients' time is saved also by obviating the sending of suspected cases to the Sanatorium for periods of observation where the physical signs in the lungs simulate those of pulmonary tuberculosis. By means of the X-Rays the differential diagnosis of such cases is made enormously easier.

The great value to the Medical Officers of X-Ray examination of the chest has been markedly shown by the large number of cases gradually removed from the Dispensary Register which had many years ago been diagnosed as cases of pulmonary tuberculosis on physical signs only. This has been possible owing to a more accurate diagnosis by X-Ray examination.

In the X-Ray Department a reducing camera was installed in 1930, and when a radiogram showing tuberculous disease is taken, a reduced sized photographic copy is sent to the General Practitioner. In order that he may have an accurate knowledge of the condition and extent of the disease, careful notes describing the lesions are filled in on the back of the photograph.

Letters of appreciation have been received from Medical Practitioners regarding this development, which is undoubtedly of great assistance to the doctor attending the patient.

It is hoped, during the ensuing year, to instal at the Dispensary a larger X-Ray plant in order to utilise the latest form of X-Ray tube which will still further improve the quality of the films obtained, although those produced by the present installation are of high quality.

(d) Treatment by Artificial Pneumothorax.

The greatest advance of recent years in the treatment of pulmonary tuberculosis is the more universal use of Artificial Pneumothorax or collapse of the lung.

This method of treatment is now well established and is in regular use.

Primary inductions are carried out both at Ladywell and Nab Top Sanatoria. Refills are continued there for six months or longer according to the time the patient is able to remain in the Sanatorium.

Usually after six months, in straightforward cases, the patient can return home, and the refills are continued at the Dispensary. At the end of 9-12 months patients return to work and have refills at intervals of two to four weeks, according to absorption of air.

No trouble has been experienced during the past year in obtaining the attendance of patients who are working and the opportunity is taken here to express appreciation of the action of employers in allowing their employees to attend for refills when required. As the collapse of the lung must be kept up for a period of from two to four years the number of patients requiring refills is constantly growing, and a special room is set apart for the Dispensary treatment of those patients undergoing collapse therapy. The room is fitted with all necessary apparatus for refills, gas replacements, etc.

The ideal case for treatment by collapse therapy is one in which the disease is confined entirely to one lung so far as can be ascertained from an X-Ray film of the chest.

Provided that the whole lung collapses completely without adhesions, arrest of the disease is obtained after three to four years' treatment in the great majority of cases.

But in those cases in which collapse is imperfect and adhesions are present, pleural effusions are very liable to form when the prognosis of the case is completely altered and a cure is much less likely to be obtained.

Our experience has also taught us that in those patients who have some disease in the contra-lateral lung there is a considerable likelihood of this disease extending and becoming active at a later date. This is especially so in patients who for economic reasons are obliged to return to work too soon and as a consequence too much work is thrown on the non-collapsed lung.

So many of these patients have died through active spread in the contra-lateral lung that we now choose our cases for collapse treatment more conservatively than at first.

At the present time we do not recommend collapse therapy unless the lesion on the less diseased side is quite small and confined to one zone of the lung.

In a few patients, arrest of the lesion on one side has had to be followed by collapse of the other lung owing to extension of the disease and this has been accomplished successfully.

There is no doubt that collapse therapy has completely altered the prognosis of Pulmonary Tuberculosis in suitable cases.

Analysis of Cases Given Artificial Pneumothorax Treatment.

During the past year forty-seven (47) new cases commenced treatment by Artificial Pneumothorax (twenty-four (24) at Ladywell Sanatorium), (twenty-one (21) at Nab Top Sanatorium) and (two (2) at Hope Hospital). Sixty (60) patients continued their refills at the Dispensary, twenty-four (24) of whom are working with completely quiescent disease. The number of Artificial Pneumothorax refills carried out at the Dispensary, Ladywell, and Nab Top Sanatoria during the past year was as follows :—

Tuberculosis Dispensary	595
Ladywell Sanatorium	265
Nab Top Sanatorium	380
Hope Hospital	6
Total Number of Refills	1,246

Other Forms of Treatment for Pulmonary Tuberculosis.

1. Treatment by Gold Salts. (Gold Thiosulphate).

Two preparations have been used viz :—Sanocrysin and Crisalbine.

These preparations are employed dissolved in distilled water for the small doses and Gluconyl (Calcium Gluconate) for the larger doses.

The treatment is commenced with .05 gram, and gradually increased to .5 gram. until 4.5 grams. have been given. This constitutes one course and is repeated if necessary. The use of Gluconyl as a vehicle for gold salts has been found to greatly reduce the risk of certain complications arising such as skin rashes, diarrhœa, albuminuria, conjunctivitis and stomatitis.

Type of case suitable for Treatment by Gold Salts.

(*a*) Patients undergoing collapse treatment of one lung in whom exacerbation of an early lesion in the other lung takes place. Good results have been obtained in some cases and X-Ray examination has shown that the spread of disease has been checked with subsequent fibrosis. In some cases considerable resolution of the disease has taken place ; the X-Rays showing marked clearing of the lung.

In a few patients little benefit has been obtained owing to complications arising. Five patients in this category have received gold injections.

(*b*) Patients with the upper portions of both lungs about equally affected are not suitable for collapse therapy and when ordinary sanatorium treatment has little effect the injection of Gold Salts does in some cases afford considerable benefit. The sputum becomes negative and fibrosis of the lesion commences. In fifty per cent. of our cases little or no benefit was obtained.

Twenty-seven patients of this type have received gold injections.

2. Nordalin Treatment.

This treatment has recently been introduced into this country from Switzerland. Its object is to increase the resistance of the body to the tubercle bacillus and so prevent their growth in the human organism.

The preparation consists of three tablets named :—

1. Recytel.
2. Nordalin A. (Containing a small amount of Tuberculin).
3. Nordalin B.

The treatment is commenced with tablets of Recytel and Nordalin B given on alternate days and is continued for two weeks after which every third day a tablet of Nordalin A is given instead of the previous two preparations. If after two months, satisfactory progress is being made the doses are increased. Should the Nordalin A produce a re-action the dose is of course reduced.

During the year six cases received this form of treatment. One case in which induction of artificial pneumothorax was unsuccessful showed great improvement. Two cases with bilateral disease were improved, one of which showed remarkable healing of the lesion on X-ray examination and is continuing the treatment at home. One patient with multiple bone tuberculosis showed no improvement and two patients died.

It is too early to make any statement as to the value of the treatment but we are continuing its use.

Certain types of cases are unsuitable for this form of treatment.

(*a*) Cases of extensive disease are made worse.

(*b*) Cases with any softening and cavitation. The liability to haemoptysis appears to be increased.

(e) Insured Persons.

Insured patients not in need of Institutional treatment are usually placed on domiciliary treatment, that is to say, they are treated by their own doctors whilst residing at home, and records of progress should be furnished every three months by the attending Medical Practitioners on Form G.P. 36. These patients are examined from time to time by one of the Tuberculosis Officers, and a report furnished to the Practitioner concerned.

(f) Dispensary Treatment.

Non-insured patients suffering from chronic disease who are unsuitable for Sanatorium treatment or who have received Institutional treatment and are now ambulant, and who are too poor to pay a General Practitioner, are treated at the Dispensary by Cod Liver Oil Emulsions or suitable drugs.

The condition of these persons depends to a large extent on the home conditions, the facilities for obtaining suitable food and the general habits of the patient. Their disease appears to remain stationary for long periods, especially when they are of middle age or over and when the acute stage of the disease is past.

(g) Primary Tuberculous Pleurisy.

Owing probably to the increasing resistance of the race to Tuberculosis a larger number of patients infected with the Tubercle Bacillus first show this by developing a primary Tuberculous pleurisy without any physical or X-ray evidence of a lesion in the lungs.

Consequently many more cases of primary tuberculous pleurisy have been referred by General Practitioners during the past year to the Tuberculosis Officer, who has also been asked to see a considerable number at the Hope Hospital.

It is now recognised by experienced Tuberculosis workers that the majority of primary pleurises and certainly those with effusion (except a few which may be due to Syphilis or New Growth) should be regarded as due to the Tubercle Bacillus and the patient given adequate treatment before returning to work.

Samples of the effusion from the cases of primary pleurisy passing through our hands have been submitted to the laboratory for guinea pig inoculation and the great majority have been returned positive.

In former years many patients who had suffered from primary pleurisy at some previous date returned to work after a few weeks' treatment at home, and all of them developed active disease in one or both lungs after a varying interval of time. It is evident that the disease had been latent over this period, and owing to the patients' resistance becoming lowered in some way the Tubercle Bacillus had again become active.

All these patients are now urged to undergo Sanatorium treatment until all signs of the disease have disappeared. The majority accept this advice, but some refuse as they feel so well after a few weeks rest at home or in Hospital.

We are of opinion that all patients with primary tuberculous pleurisy should undergo Sanatorium treatment until all X-Ray evidence of the disease has disappeared. This will, as far as is possible, prevent the development of active pulmonary tuberculosis at a later date.

(h) Non-pulmonary Tuberculosis.

The total number of primary and informal notifications of non-pulmonary or surgical tuberculosis received during 1936 was one hundred and three (103), fifty (50) adults and fifty three (53) children of school age. These are made up of cases suffering from disease of glands, bones, joints, abdomen, meninges and other forms. The majority of these patients are not seen at the Dispensary as they are usually sent direct by the General Medical Practitioners to the local Hospitals for diagnosis and treatment. A certain number are sent in the first instance to the Dispensary by General Practitioners when the diagnosis is doubtful and in the case of children many are referred by the School Medical Officers.

Cases requiring surgical treatment are sent by the Dispensary Medical Officers to the Municipal Hospital in most cases, but some are first seen at Salford Royal Hospital. Where Sanatorium treatment is likely to be of benefit the patients are sent by the Tuberculosis Officers and at the request of Hospital Medical Officers to Nab Top Sanatorium. When considered suitable, patients are referred for treatment at the Artificial Sunlight Clinic.

ARTIFICIAL SUNLIGHT.

Five sessions per week are allotted to the Tuberculosis Department for the treatment of non-pulmonary tuberculosis in the Artificial Sunlight Clinic. The equipment consists of :—

2. Carbon Arc Lamps of the Westminster type.
1. Jesionek Mercury Vapour Lamp.

Cases suitable for this form of treatment are :—

(*a*) Tuberculosis of the skin.

(*b*) Tuberculous glands, especially those with discharging sinuses.

(*c*) Abdominal Tuberculosis.

(*d*) Tuberculosis of bones and joints.

All these forms of non-tuberculous disease derive great benefit, except those showing marked changes in the bones or joints of old standing.

A large number of children of school age have been given courses of Artificial Sunlight at the request of the School Medical Officers. These have been cases of General Debility or recurring Bronchial Catarrh and especially when these came from tuberculous households. Combined with treatment at an Open-air School much benefit has been shown by these children.

EXAMINATION AND TREATMENT OF CHILDREN DURING 1936.

(a) Contacts.

During the year 1936, one hundred and eighty-five (185) children were examined as contacts at the Tuberculosis Dispensary.

One was found to have pulmonary tuberculosis.

(b) Pulmonary Disease in Children.

1. Tuberculous.

One hundred and forty-three (143) children of school age were referred to the Dispensary in 1936 for examination by the School Medical Officers, General Practitioners and Medical Officers of local Hospitals and Dispensaries.

Nine (9) children were diagnosed as suffering from tuberculous disease of the chest. Of the above nine cases, four (4) came from homes in which a positive adult case of pulmonary tuberculosis had occurred during the past two years.

The adult type of pulmonary tuberculosis is rare in children of school age and only three patients were found to be suffering from this type. Each had definite physical and X-ray evidence of the disease with a positive sputum. Three other patients were cases of tuberculous pleurisy with effusion and were positive on guinea pig inoculation. Two patients showed hilar gland infection on X-ray examination, and one patient died from miliary tuberculosis.

Seven (7) of the above children were admitted for treatment to Nab Top Sanatorium and two to the Ladywell Sanatorium. At the Nab Top Sanatorium there is an Open Air School in which all children under treatment can continue their education as soon as they are considered fit to attend by the Medical Superintendent.

2. Non-Tuberculous.

Chronic non-tuberculous pulmonary disease in children is very common and is usually a sequela of an attack of pneumonia or repeated bronchitis following measles or whooping cough. It should be recognised that measles in particular is liable to cause marked alteration in the epithelium of the bronchial mucosa and the stroma of the lungs which is followed by fibrotic changes. Broncho or lobar pneumonia in children frequently fails to resolve completely and goes on to produce pulmonary fibrosis.

These children are extremely susceptible to the polluted atmosphere of industrial towns and easily take cold, resulting in recurrent attacks of bronchitis. The pulmonary fibrosis is increased and finally bronchiectasis may supervene. A considerable number of these children are referred to the

Tuberculosis Medical Officers for physical and X-Ray examination of the chest because the physical signs resemble those of tuberculous lung disease. Many of these children find considerable benefit by attending an Open-Air School and we have also found that treatment at the Artificial Sunlight Clinic is useful in increasing their resistance.

INSTITUTIONAL TREATMENT.

(a) Nab Top and Ladywell Sanatoria.

The residential institutions in connection with the Tuberculosis scheme are :—

(*a*) Nab Top Sanatorium, Marple.
(*b*) Ladywell Sanatorium, Salford.

There are 120 beds available at the Nab Top Sanatorium, Marple, for the treatment of Salford patients. These beds are occupied principally by observation, early, and intermediate cases of pulmonary tuberculosis. Occasionally, however, cases of surgical tuberculosis are admitted for treatment. Twelve of the beds which are in rather exposed shelters are not used during the six winter months.

At the Ladywell Sanatorium there are 72 beds set apart for the treatment of tuberculosis. Many cases are being admitted to the Ladywell Sanatorium while the temperature remains above normal ; subsequently, on becoming afebrile, they are transferred to the Nab Top Sanatorium, Marple, for open-air sanatorium treatment. It has been found that many cases of quite moderate severity do badly at an open-air sanatorium such as Nab Top, where they are almost completely in the open air, but when admitted to the Ladywell Sanatorium, in which, while there is an abundance of fresh air, the patient is not actually living and sleeping in the open air, excellent progress is made, and the patient's temperature rapidly falls. Numbers of these patients have been transferred from the Nab Top Sanatorium, where they had been in bed continually for several months with no apparent improvement, and on transfer to the Ladywell Sanatorium immediate improvement with a fall of temperature has been noticed. It is, consequently, of great value to have two Institutions of different type for the treatment of pulmonary tuberculosis.

The Ladywell Sanatorium is also largely used for the isolation of advanced cases ; such isolation is undoubtedly of great value in lessening the danger of massive infection in the homes, but is detracted from by the difficulty of keeping the patients in hospital indefinitely.

The need for an X-Ray equipment at Ladywell Sanatorium has become more and more necessary and it is, therefore, proposed to remove the present installation from the Dispensary and erect the outfit at Ladywell.

Hitherto patients have had to be brought every week from the Sanatorium by ambulance to the Dispensary for X-Ray examination at great inconvenience.

It will then be possible to erect a much larger installation of the latest type at the Tuberculosis Dispensary where the bulk of the primary diagnosis of cases is carried out.

Owing to the increasing number of cases requiring treatment by Artificial Pneumothorax a certain number of beds in Ladywell Sanatorium have had to be utilised during the past few years for this type of case. The Medical Superintendent at Nab Top Sanatorium, Marple (where there is no Assistant Medical Officer), has not been able to cope with the whole number of patients requiring collapse therapy. Consequently, twenty-four (24) patients have undergone this form of treatment at Ladywell Sanatorium and have progressed equally as well as those at Nab Top Sanatorium.

(b) Treatment of Tuberculous Skin Diseases.

Special arrangements have been made with the Manchester and Salford Hospital for Skin Diseases for the treatment of lupus and other tuberculous skin lesions. A large number of these cases were approved for Artificial Sunlight treatment and there is no doubt that this method has a very beneficial effect on the lesions, recovery being much more rapid than in cases treated by local applications only. It is, however, necessary in order to obtain the maximum benefit that the patients should attend daily for Artificial Sunlight treatment.

The number of visits paid by patients to the Skin Hospital for treatment during 1936 was two hundred and ninety-three (293), and the total number of tuberculous skin cases treated was thirty-four (34).

It was decided to treat all suitable cases at our own Artificial Sunlight Clinic and accordingly the existing accommodation was increased and an additional carbon arc lamp installed in April, 1934. In this way patients, who had previously been treated at the Manchester and Salford Hospital for Skin Diseases, now attend our own Sunlight Clinic where the treatment is carried out at a much cheaper rate than hitherto. During 1936, seventy-four (74) patients have received treatment at the Clinic with a total number of attendances of four thousand seven hundred and eighty-six (4786).

GENERAL REMARKS.

The powers contained in the Salford Corporation Act, 1920, and the Public Health Act, 1925, for the compulsory removal to hospital of persons suffering from pulmonary tuberculosis have not been utilised up to the present time.

It has been found that in obstinate cases of advanced disease it is sufficient to warn the patient that compulsory powers can be put in force on application to a magistrate.

No action has been necessary under the Public Health (Prevention of Tuberculosis) Regulations, 1925, in connection with tuberculous employees in the milk trade.

TABLE 1.

SUMMARY OF WORK DONE AT THE TUBERCULOSIS DISPENSARY IN 1936.

Diagnosis.	Pulmonary.				Non-Pulmonary.				Total.			
	Adults		Children		Adults		Children		Adults		Children	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
A. New cases examined during the year—												
(*a*) Definitely tuberculous	137	104	6	3	12	11	12	8	149	115	18	11
(*b*) Doubtfully tuberculous	—	—	—	—	—	—	—	—	3	3	4	—
(*c*) Non-tuberculous	—	—	—	—	—	—	—	—	192	196	65	45
B. Contacts examined during the year—												
(*a*) Definitely tuberculous	3	—	—	1	—	—	—	—	3	—	—	1
(*b*) Doubtfully tuberculous	—	—	—	—	—	—	—	—	—	—	—	—
(*c*) Non-tuberculous	—	—	—	—	—	—	—	—	70	113	87	97
C. Cases written off Dispensary Register as—												
(*a*) Recovered	33	23	3	5	2	4	7	9	35	27	10	14
(*b*) Diagnosis not confirmed or non-tuberculous	—	—	—	—	—	—	—	—	277	318	153	147
D. Number of persons on Dispensary Register on December 31st—												
(*a*) Diagnosis completed	505	373	27	16	47	60	71	60	552	433	98	76
(*b*) Diagnosis not completed	—	—	—	—	—	—	—	—	3	3	4	—

1. No. of persons on Dispensary Register on January 1st	1276
2. No. of patients transferred from other areas and "lost sight of" cases returned	29
3. No. of patients transferred to other areas and cases "lost sight of"	128
4. Died during the year (Dispensary cases)	199
5. No. of attendances at Dispensary (including contacts)	5105
6. No. of consultations with medical practitioners—	
(*a*) Personal	5
(*b*) Other	653
7. No. of visits by Tuberculosis Officers to homes	46
8. No. of visits by Nurses or Health Visitors to homes for Dispensary purposes	7541
9. No. of—	
(*a*) Specimens of sputum, &c., examined	855
(*b*) X-Ray examinations made in connection with Dispensary work	2068
10. No. of "TB plus" cases on Dispensary Register on December 31st	533
11. No. of insured persons under Domiciliary treatment on December 31st	641
12. No. of "Recovered cases" restored to Dispensary Register	2

TABLE 2.

Showing Period elapsing between Notification and Death in Fatal Cases of Pulmonary Tuberculosis.

	Number.	Per-centage.
Not Notified before death	15	7.38
Notified within three months of death	52	25.61
,, from three months to one year before death	37	18.22
,, from one year to two years before death	28	13.79
Over two years	71	35.00

Total number of deaths, 203.

Ratio of non-notified cases to total fatal cases, 15—203.

TABLE 3.

New Cases and Mortality during 1936.

Age Periods.	New Cases.				Deaths.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
0	....	....	1	4	....	....	1	4
1	2	....	4	6	1	....	....	1
5	3	....	14	8	1	....	1	3
10	3	7	15	1	1	3	4	....
15	22	23	7	7	9	4	....	....
20	19	29	2	7	12	20	....	1
25	42	35	7	6	21	13	3	2
35	27	18	2	4	30	13	....	....
45	34	5	1	4	29	6	....	5
55	21	12	1	....	27	5	1	....
65 and upwards	11	1	1	1	8	....	....	1
Totals	184	130	55	48	139	64	10	17

TABLE 4.

OCCUPATIONS OF THE 314 CASES OF PULMONARY TUBERCULOSIS NOTIFIED.

MALES.

1. Joiners, House Decorators and Building Trades	7	15. Greengrocers	2
2. Carters and Hawkers	6	16. Bakers	3
3. Labourers and Navvies	28	17. Employees in Motor Trades	4
4. Butchers	3	18. Porters	3
5. Clerks and Typists	4	19. Painters	2
6. Makers of Wearing Apparel.	9	20. Warehousemen	5
7. Colliers	2	21. Rubber Workers	3
8. Mechanics and Engineering Workers	24	22. Scholars	5
9. Seamen	2	23. Tramway Workers	3
10. Railway Workers	2	24. Draughtsmen	2
11. Printers and Bookbinding Trades	5	25. Commercial Travellers	6
12. Dyers and Bleachers	5	26. Miscellaneous Occupations	25
13. Cotton Workers	6	27. No Occupation	16
14. Electricians	2	Total	184

FEMALES.

1. Clerks and Typists	5	9. Boxmakers	3
2. Makers of Wearing Apparel.	26	10. Domestic Servants	3
3. Rubber Workers	2	11. Packers	2
4. Cotton Workers	14	12. Miscellaneous Occupations	9
5. Waitresses	2	13. No Occupations	5
6. Housewives	49		
7. Charwomen and Laundresses	3		
8. Scholars	7	Total	130

During the year 1936, 103 new notifications of non-pulmonary tuberculosis have been received.

The new cases of non-pulmonary tuberculosis notified are classified in the following table :—

	Glands.	Bones.	Abdomen.	Skin.	Meninges.	Other forms.	Totals.
Under 10 years	16	9	5	....	3	3	36
10 to 20 years	8	7	6	3	2	3	29
20 to 30 ,,	4	3	5	2	2	2	18
30 to 40 ,,	2	1	2	1	—	3	9
Over 40	3	4	1	—	2	1	11
Totals	33	24	19	6	9	12	103

NAB TOP SANATORIUM.

Annual Report.

RESIDENT STAFF.—Medical Superintendent, Matron, Home Sister, two Ward Sisters, eleven Nurses, Cook, Laundress, seventeen Maids and Lodge Porter.

NON-RESIDENT STAFF.—Engineer, School-Mistress, Porter, two Gardeners and Labourer.

ACCOMMODATION.—From April 1st to September 30th each year there is accommodation in the Sanatorium for 120 patients (62 adult males, 42 adult females, 8 male children, and 8 female children).

From October 1st to March 31st, accommodation is slightly less, namely 108 (50 adult males, 42 adult females, 8 male children, and 8 female children).

TYPE OF CASE TREATED.—The Sanatorium is used for the treatment of early and intermediate cases of Phthisis.

A few advanced cases who show good resistance to the disease are also treated. A number of " observation " cases are admitted.

LINES OF TREATMENT.—The treatment adopted is chiefly Hygienic—open air, rest and graduated exercise.

In 1936, 36 patients were treated by means of Artificial Pneumothorax. Of these 21 were induced at the Sanatorium and refills were carried out on the remaining cases who had been induced elsewhere or at Marple in 1935. In all, 535 refills were given during the year. The average duration of stay of these patients was 170 days as compared with an average stay of 120 days for the whole Institution. Whilst the great majority of cases of Artificial Pneumothorax showed marked improvement, and in a few cases almost a miraculous degree of improvement, it is to be regretted that this method of treatment cannot be applied to every case, but unless suitable cases are chosen, i.e., with disease confined to one lung, or at most with a slight degree of disease in the other lung, much harm would be done by an indiscriminate use of such treatment. About 10 to 15 per cent. of Artificial Pneumothorax cases develop a pleural effusion, due to an adherent pleura or to an adhesion and these cases never do so well as the fluid-free cases. The great majority of patients having this treatment and

who continue with refills at the Chest Dispensary after leaving the Sanatorium do exceedingly well and are mostly able to carry on with their ordinary occupation during the treatment, which is a great advantage to the patient. Of all the modern methods of treatment Artificial Pneumothorax has, up to the present, given the best results and is likely to remain in favour permanently as a curative method.

The X-ray plant at the Sanatorium is much in use and although rather out-of-date, is yet quite reliable for the work it has to do and gives all the results required. In 1936, 166 X-ray photographs were taken and over 250 screenings took place.

Treatment by Nordalin and by Gold Salts is also in use at the Sanatorium. Last year over 20 patients were treated by these methods and whilst a few cases did quite well it cannot be said that these methods of treatment are really successful.

If the reader will refer to the Annual Report of the Medical Officer of Health for 1935 he will find there an excellent résumé of treatment by these three methods by Dr. E. N. Ramsbottom in his report of the year's work at the Chest Dispensary.

It is a matter of concern to all connected with the Institution to note that of recent years the number of admissions has been gradually decreasing. This is especially so during the cold damp winter months (October to March) when the number of in-patients is at its lowest. In fact in December last year patients at one time numbered only 43. This, is probably due to several factors, viz. People do not want to leave the comfort of their own home fireside to begin a more or less open-air course of treatment during the severe months of the year although as a matter of fact it is found that patients make better progress in the cold months of the year than in the hotter period. That this is so is proved by the fact that there is little difficulty in keeping the Institution nearly full from May to September, when the weather may reasonably be expected to be fine. Another factor, and, I believe, an important one, is that we have had, up to the present, no recreation rooms for the patients. Patients cannot work out-of-doors in the wet weather and as there is at present no accommodation for recreation they are more or less confined to the neighbourhood of the wards for games, etc.

This defect is to be rectified during the year 1937, when two recreation rooms, one for men and one for women, are to be provided where games of all kinds, letter writing, etc., may be indulged in with a much greater degree of comfort than is possible to-day and it is likely that with these amenities available the number of winter residents will be considerably increased.

A third factor which accounts for the low winter numbers is the increasing number of patients undergoing Artificial Pneumothorax treatment who can be treated while carrying on their work and living at home.

The school under the guidance of Miss Gardner is still doing good work and the sixteen children who on an average attend the school gain much from an educational standpoint whilst they also make physical gains. The three " R " 's are not the only things that matter. Handicraft and gardening take up a good part of the time, the latter especially in the spring and summer, and nature walks and rambles are much appreciated.

A fair proportion of the vegetables used by the Sanatorium is grown in the grounds, and in this work to some extent patients are able to help.

At present the recreations are much as in former years. The dining hall has been opened to patients daily in the winter months from 5 to 6 p.m. and for longer on Saturday. With the advent of the new Recreation rooms this arrangement will cease. Bowls and putting for the men and croquet for the women provide most of the recreation in the summer and the lawns are in constant demand for these games. In the winter months whist drives and concerts are held frequently.

CANTEEN.—A canteen has been established in the grounds wherein are sold those articles likely to be used in everyday life.

EDUCATION.—The Medical Superintendent at frequent intervals delivers lectures to the patients on such subjects as " Pulmonary Tuberculosis," " Rules of Health " and " The Care of the Mouth and Teeth." It is hoped that on leaving, patients may carry out the instructions given in these lectures and thus minimise the spread of infection in their own homes.

An open-air school, under the guidance of a competent teacher, has been established for patients under 16 years of age. This has been a boon to those children whose state of health has not permitted them to attend the ordinary school at home. No child is allowed to attend school unless certified physically fit by the Medical Superintendent. It may be of interest to know that during the last two years a large number of prizes have been won by the School Children for educational subjects and handicrafts in competition with children from ordinary Day Schools in the Manchester area.

Appended is a table showing the number of admissions, etc., and the number of patient-days during the year 1936 :—

TABLE A—(Nab Top Sanatorium).

SHOWING THE NUMBER OF ADMISSIONS, ETC., AND THE NUMBER OF "PATIENT-DAYS" DURING THE YEAR 1936.

	Total Adults.		Children under 15.			Totals.		
	Males	Females	Males	Females	Both	Males	Females	Both
Number of Patients admitted prior to 1936 who remained in Sanatorium for some part of 1936	19	11	9	4	13	28	15	43
Number of "Patient-days" in 1936 for patients admitted prior to 1936 who remained in Sanatorium for some part of 1936	2609	1231	1453	397	1850	4062	1628	5690
Total admissions, 1936	114	75	18	21	39	132	96	228
Total discharges and deaths, 1936	122	85	18	20	38	140	105	245
Number of "Patient-days" for persons admitted during 1936	9826	7839	1454	1795	3249	11280	9634	20914
Total number of "Patient-days" for 1936	12435	9070	2907	2192	5099	15342	11262	26604
Average number of Patients in Sanatorium each day during 1936	34.0	24.8	7.9	6.0	13.9	41.9	30.8	72.7

NOTE.—The term "Patient-days" represents the product of the number of patients and the number of days spent by those patients in the Sanatorium.

TABLE B.—Patients Discharged from Nab Top Sanatorium during 1936.

	Condition at Time of Discharge.	Duration of Residential Treatment in Institution.											
		Under 3 Months, but exceeding 28 days.			3 to 6 Months.			6 to 12 Months.			Over 12 Months.		
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.
Pulmonary Tuberculosis	Quiescent	1	1	1	7	5	3	....	1	4	....	1	1
	Not Quiescent	45	27	8	30	19	2	12	7	2	2	3	....
	Died	....	....	....	....	....	....	....	....	....	....	....	....
	Totals	46	28	9	37	24	5	12	8	6	2	4	1
Non-Pulmonary Tuberculosis	Quiescent	....	....	....	....	....	....	....	1	4	....	....	....
	Not Quiescent	5	2	1	1	....	2	....	....	....	....	1	....
	Died	....	....	....	....	....	....	....	....	....	....	....	....
	Totals	5	2	1	1	....	2	....	1	4	....	1	....

		Under 4 weeks.			Over 4 weeks.		
Observation for Purposes of Diagnosis	Tuberculous	....	....	1	....	....	2
	Non-Tuberculous	....	2	2	1	....	1
	Doubtful	1	....	....	....	....	....

LADYWELL SANATORIUM

TABLE SHOWING THE NUMBER OF ADMISSIONS, ETC., AND THE NUMBER OF "PATIENT-DAYS" FOR 1936.

TUBERCULOSIS CASES.

	Males.	Females.	Totals.
Total Number of Admissions during 1936	167	134	301
Number of Persons Admitted prior to 1936 who remained in Hospital for some part of 1936	33	20	53
Total Number of Discharges and Deaths during 1936	173	127	300
Patients in Hospital on the 31st December, 1936	27	27	54
Number of "Patient-days" for Persons Admitted during 1936	9209	8310	17519
Number of "Patient-days" (in 1936) for Persons Admitted prior to 1936 who remained in Hospital for some part of 1936	2777	1685	4462
Total Number of "Patient-days" for 1936.	11986	9995	21981
Average Number of Patients in Hospital each day during 1936	32.75	27.31	60.06

LADYWELL SANATORIUM AND ISOLATION HOSPITAL.

Report for the Year 1936.

At the beginning of the year there were 226 cases remaining in Hospital; these, with the 2,226 admitted during the year, made a total of 2,452 cases under treatment. Of this total 2,028 were discharged, 183 died and 241 were in Hospital at the end of the year. The number of cases treated, 2,452, compares with 2,502 in 1935, and with 2,374 the average of the cases treated for the five years ended December 31st, 1935.

The cases treated were as follows :—

Scarlet Fever	627
Mixed Infections	36
Measles	211
Enteric Fever	7
Diphtheria	708
Erysipelas	62
Puerperal Fever	13
Tuberculosis	340
Other Diseases	448
	2,452

The number of cases admitted from Out-districts was 425, as compared with 419 in 1935. The daily average number of patients in 1936 was 238.0; the highest being 290 on November 22nd, and the lowest 178 on June 13th; 2,226 patients were admitted during the year, as compared with 2,204 in 1935 and with 2,115 the average for the five years ended December 31st, 1935. The following summary shows the diagnosis of the cases before admission and after observation in Hospital :—

	Diagnosis before Admission	Diagnosis after Observation
Scarlet Fever	636	573
Mixed Infections	18	35
Measles	192	186
Enteric Fever	7	6
Diphtheria	782	630
Erysipelas	76	58
Puerperal Fever	14	11
Tuberculosis	299	287
Other Diseases	202	440
	2,226	2,226

Details of the alterations in diagnosis will be found in the Tables V. and VI., pages 113 and 114. A tabulation of cases classified as "Other Diseases" will be found on page 107.

MIXED DISEASES.—Thirty of the patients discharged were found to be suffering from two distinct diseases, as follows :—

Chicken Pox (incub.) and Furuncle L. Ear	1
Chicken Pox and Measles	1
Diphtheria and Chicken Pox	3
Diphtheria and Mumps	1
Diphtheria and Scarlet Fever	1
Diphtheria Carrier and Epithelioma Nose	1
Diphtheria Carrier and Vincent's Angina	1
Diphtheria and Whooping Cough	5
Measles and Diphtheria	4
Measles and Impetigo	1
Measles and Whooping Cough	3
Rubella and Diphtheria	1
Rubella and Whooping Cough	1
Scarlet Fever and Chicken Pox	2
Scarlet Fever and Measles	1
Scarlet Fever and Whooping Cough	2
Whooping Cough and Chicken Pox	1
	30

DEATHS FROM MIXED DISEASES.—In this group the concurrent affections directly or indirectly caused a fatal termination in five cases :—

Diphtheria and Gastro-enteritis	1
Laryngismus and Rickets	1
Measles and Whooping Cough	3
	5

The average stay in Hospital for all mixed diseases cases discharged well in 1936 was 48.6 days, and for the five fatal cases 15.2 days.

The number of patients discharged in 1936 who contracted another infection was as follows :—

Sent in as :—	Secondary Infection.	
Diphtheria	Chicken Pox	6
Diphtheria	Chicken Pox and Measles	3
Diphtheria	Chicken Pox and Whooping Cough	1
Diphtheria	Measles	5
Diphtheria	Scarlet Fever	4
Measles	Chicken Pox	1
Measles	Diphtheria	3
Measles	Erysipelas	1
Measles	Scarlet Fever	2
Measles	Whooping Cough	2
Scarlet Fever	Chicken Pox	1
Scarlet Fever	Diphtheria	1
Scarlet Fever	Diphtheria and Measles	1
Scarlet Fever	Whooping Cough	2
		33

The average stay in Hospital for the 33 cross-infected cases discharged well in 1936 was 69.7 days.

The total number of cases discharged in 1936 was as follows :—

Disease.	Number
Scarlet Fever	561
Mixed Infections	30
Measles	185
Enteric Fever	6
Diphtheria	572
Erysipelas	54
Puerperal Fever	9
Tuberculosis	210
Other Diseases	401
	2,028

The average stay in Hospital for all cases discharged well during 1936 was :—for scarlet fever 35.9 days ; for mixed infections 48.6 ; for measles 22.3 ; for enteric fever 68.5 ; for diphtheria 48.7 ; for erysipelas 25.0 ; for puerperal fever 26.0 ; for tuberculosis 70.5 ; for other diseases 23.8.

DEATHS.—The total number of fatal cases in 1936 was :—

Disease.	Number.
Scarlet Fever	5
Mixed Infections	5
Measles	26
Enteric Fever	1
Diphtheria	34
Erysipelas	2
Puerperal Fever	2
Tuberculosis	76
Bronchiectasis	2
Carbuncle (face)	1
Cerebral Embolism	1
Cerebro-spinal Fever	3
Convulsions	1
Gastro-enteritis	1
Intra-thoracic Malignant Disease	1
Pneumonia	5
Pneumococcal Meningitis	1
Septicæmia	1
Septic Throat	1
Whooping Cough	14
	183

The average stay in Hospital for all fatal cases, excepting advanced tuberculosis was 13.3 days.

The daily average number of patients in Hospital in 1936 was 238.0, as compared with 250.0 in 1935 and with 241.2 the daily average for the five years ended December 31st, 1935.

There were remaining in Hospital on December 31st, 1936, 241 cases, as compared with 226 last year. The cases remaining on 31st December, 1936, were :—scarlet fever 61 ; mixed infections 1 ; diphtheria 102 ; erysipelas 6 ; puerperal fever 2 ; tuberculosis 54 ; and other diseases 15.

Seventy-eight of the cases remaining were from Out-districts, as compared with 52 the year before.

DETAILED INFORMATION ABOUT SOME DISEASES.

Scarlet Fever.

The number of cases admitted was 573, as against 646 in 1935. 636 cases were certified as having scarlet fever, but in 79 cases the diagnosis had to be revised. In addition, 3 cases admitted as mixed infections, 1 as measles, 10 as diphtheria, and 1 as erysipelas proved to be scarlet fever. 561 cases were discharged well during the year, as against 668 last year. There were 5 deaths from this disease.

Details of the 5 fatal cases of scarlet fever :—

Male aged 20 years, Septic Scarlet Fever with Ludwig's Angina ;

Male aged 1½ years, Septic Scarlet Fever, developed adenitis and abscess which was incised, and later erysipelas of face ;

Male aged 9 years, Septic Scarlet Fever with Septicæmia ;

Male aged 5 years, Septic Scarlet Fever with adenitis, bronchopneumonia, empyema and septicæmia ;

Female aged 3 years, Septic Scarlet Fever with otitis media, thrombosis of lateral sinus and meningitis.

The type of the disease was moderate. Scarlatinal antitoxin was given intramuscularly in 5-10 c.c. doses to all but the very mild cases. The more important complications were as follows :—

	Cases Affected.	Percentage of Discharged Cases.
Adenitis and Abscess (1)	28	5.00
Rhinitis	4	.71
Otorrhœa and Otitis Media (6)	31	5.70
Relapse	5	.89

Other complications were as follows :—Albuminuria 3 ; bronchitis 2 ; conjunctivitis 3 ; facial paresis 1 ; gastro-enteritis 2 ; impetigo 4 ; incisions 5 ; nephritis 3 ; onychia 1 ; paronychia 3 ; peritonsillar abscess 3 ; pharyngitis 1 ; pyelitis 1 ; rheumatism 1 ; otitis media 2 ; scabies 1 ; stye 1 ; tonsillitis 2 ; ulcer (leg) 1 ; whitlow 2.

Five cases contracted another infection whilst in Hospital :—chicken pox 1 ; diphtheria 1 ; diphtheria and measles 1 ; whooping cough 2.

The average stay in Hospital for all cases discharged well was 35.97 days, and for the 5 fatal cases 8.5 days.

The following table indicates the period of residence of the 556 cases of scarlet fever uncomplicated with another disease who were discharged well in 1936 :—

Week of Discharge	Number of days in Residence when Discharged.							Number of cases in each Day.							No. of Cases in each week.
Under fourth	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3
Fourth	22	23	24	25	26	27	28	1	1	2	1	10	48	53	116
Fifth	29	30	31	32	33	34	35	65	60	69	44	36	28	20	322
Sixth	36	37	38	39	40	41	42	12	18	4	3	3	8	2	50
Seventh	43	44	45	46	47	48	49	4	4	6	2	4	4	3	27
Eighth	50	51	52	53	54	55	56	2	3	2	2	3	1	4	17
Ninth	57	58	59	60	61	62	63	2	2	....	4	....	2	....	10
Tenth	64	65	66	67	68	69	70	....	1	....	....	1	....	....	2
Over Tenth	....	....	....	....	....	....	....	....	....	....	....	....	....	....	9

Total Number of Cases 556

RETURN CASES.—Information about these is usually obtainable from Salford only. 3 such cases were reported. This gives a return rate of 1.91 per cent. for Salford.

Schick Test in Scarlet Fever and Other Diseases.

The following table shows the age distribution of patients suffering from scarlet fever and other diseases who underwent the Schick test :—

	Age Periods.												Total
	Under 1 Yr.	1	2	3	4	5	6	7	8	9	10	Over 10	
Positive	....	....	....	....	2	2	2	4	....	....	2	8	20
Negative	....	....	1	....	1	1	3	1	6	2	5	19	39
Totals	....	....	1	....	3	3	5	5	6	2	7	27	59

Immunised : 3 doses 46, 2 doses 32, 1 dose 11.

Diphtheria.

782 cases were admitted certified as diphtheria, but in 161 cases the diagnosis had to be revised ; in addition 5 cases admitted as scarlet fever, 2 as mixed infections and 2 other diseases proved to be diphtheria. The disease continued to show a fairly severe type as shown by the large proportion of severe cases. In a large number (117) of the most severe cases part of the antitoxin was given intravenously, in many instances repeatedly.

There were 34 deaths from this disease.

Type of Disease.

Of the discharged cases, 476 were faucial, 8 laryngeal, 19 nasal, 6 faucial and laryngeal. There were also 97 cases of bacteriological diphtheria.

In 476 cases, including 33 fatal ones, the throat was affected.

Mild.—194 cases were mild, the deposit on the throat being localised to the tonsils with little or no toxæmia. The average amount of serum given was 14,017 units to the discharged cases. 18 cases had antitoxin before admission.

Complications and Sequelae.—Abscess (thigh) 1 ; coryza 1 ; otorrhœa 2 ; palatal paralysis 5 ; paronychia 1 ; pyelitis 6 ; rhinitis 1 ; tonsillitis 9.

One case contracted Measles, and 1 Measles and Chicken Pox.

Two cases contracted Scarlet Fever.

One case contracted Chicken Pox and Whooping Cough.

Moderate.—In 115 cases the membrane was more extensive and was accompanied by toxæmia. The average amount of serum given was 32,790 units. 7 cases received antitoxin before admission.

Complications and Sequelae.—Adenitis, paronychia, pyelitis 1 ; blepharitis 1 ; furuncle (arm) 1 ; jaundice, adenitis 1 ; lt. otorrhœa 1 ; lt. otorrhœa and palatal paralysis 1 ; otorrhœa (R. and L.), pustules (legs), colitis (thread worms) 1 ; palatal paresis 1 ; palatal paralysis 2 ; peritonsillar abscess 1 ; pyelitis 2 ; rhinitis 1 ; tonsillitis 3 ; whitlow 1.

Six cases contracted Chicken Pox and two Measles.

Severe.—167 cases, including 33 fatal ones, were of the severe type. The average amount of serum given for the 134 cases discharged was 73,542 units, and for the 33 fatal cases 94,172 units. 4 of the discharged cases and 1 of the fatal cases received antitoxin before admission.

Complications and Sequelae.—Adenitis 1 ; adenitis abscess (incised) 1 ; blepharitis, bronchitis 1 ; conjunctivitis 1 ; conjunctivitis, rt. and lt. otorrhœa 1 ; coryza 1 ; erythema nodosum 1 ; impetigo (face) 1 ; jaundice 1 ; parotitis, adenitis 1 ; otorrhœa (rt.) 2 ; otorrhœa (rt.), palatal paresis 1 ; palatal paralysis 11 ; palatal paralysis and jaundice 1 ; palatal, ocular paralysis (and of extremites), tonsillitis, rt. otorrhœa 1 ; palatal, pharyngeal, diaphragmatic paralysis, bronchopneumonia, empyema rt. 1 ; palatal, pharyngeal, ocular paralysis, convulsions 1 ; palatal, and pharyngeal paralysis 1 ; paronychia 2 ; pharyngeal paralysis 1 ; pharyngeal paralysis, convulsions 1 ; pyelitis 1 ; stye 1 ; tonsillitis 2 ; tonsillitis, adenitis, impetigo, rt. otorrhœa 1 ; whitlow 1.

Two cases contracted Measles.

Two cases contracted Scarlet Fever.

Two cases contracted Chicken Pox and Measles.

Complications of Fatal Cases.—Anuria, circulatory failure 1 ; circulatory paralysis 22 ; palatal, pharyngeal, diaphragmatic paralysis 2.

Laryngeal Diphtheria.

In 8 cases the larynx was involved, all recovered.

Mild.—In 4 cases the laryngeal obstruction was slight. The average amount of serum given was 24,090 units.

Moderate.—In 2 cases the laryngeal obstruction was moderately severe. The average amount of serum given was 28,000 units.

Complications and Sequelae.—Bronchitis (O.A.) 1.

Severe.—In 2 cases the obstruction to the breathing was severe. 1 case required tracheotomy. The average amount of serum given to the discharged cases was 64,000 units.

Complications and Sequelae.—Palatal paralysis 1.

Faucial and Laryngeal Diphtheria.

In 6 cases, including 1 fatal case, the fauces and larynx were involved.

Mild.—The 1 mild case received 32,000 units of antitoxin.

Moderate.—The 1 moderate case received 36,000 units of antitoxin.

SEVERE.—The 3 severe cases received an average of 81,333 units of antitoxin. 1 case received antitoxin before admission. 1 case required tracheotomy.

COMPLICATIONS AND SEQUELAE.—Rt. otorrhœa 1.

The 1 fatal case received 80,000 units of antitoxin and required tracheotomy.

COMPLICATIONS.—Circulatory paralysis.

Nasal Diphtheria.

There were 19 cases of this type.

MILD.—The average amount of serum given to the 17 cases was 10,750 units ; 4 cases received antitoxin before admission.

COMPLICATIONS AND SEQUELAE.—Otitis media 1 ; otorrhœa 3 ; pyelitis (O.A.) 1.

MODERATE.—The 2 moderate cases received an average of 12,000 units of serum.

Faucial and Nasal Diphtheria.

There were no cases of this type of diphtheria.

The following table summarises the sites of membrane in the total clinical cases discharged :—

Sites of Membrane.	Mild.		Moderate.		Severe.		Total.	
	Recovered	Died	Recovered	Died	Recovered	Died	Recovered	Died
Faucial	194	....	115	....	134	33	443	33
Laryngeal	4	....	2	....	2	....	8	....
Faucial and Laryngeal	1	....	1	....	3	1	5	1
Nasal	17	....	2	....	....	....	19	....
Faucial and Nasal	....	....	....	....	....	....	....	....
Totals	216	....	120	....	139	34	475	34

Diphtheritic Paralysis.—34, or 5.9 per cent., of the clinical cases discharged had paralysis in one form or another whilst in Hospital.

Complications.—139, or 24.3 per cent., of the recovered cases developed one or more complications. This figure does not include the serum rashes.

Tracheotomy was performed in 2 instances with 1 fatality.

Fatality Rate.—34, or 5.9 per cent., of the clinical cases admitted proved fatal.

Antitoxin.—30, or 6.31 per cent., of the cases discharged and 1 of the fatal cases had antitoxin before admission to the Hospital. The average amount of serum given in Hospital in the recovered cases was 34,318 units and 87,086 units in the fatal cases. In addition, 117 cases, including 28 fatal cases, had part of the serum injected intravenously.

Cross-Infection.—19 cases contracted other infection whilst in Hospital :— Chicken pox 6 ; chicken pox and measles 3 ; chicken pox and whooping cough 1 ; measles 5 ; scarlet fever 4.

Average Stay.—The average stay in Hospital for all cases discharged well was 48.7 days, and for the fatal cases 9.7 days.

Dick Test in Diphtheria.

The Dick test was performed in 426 cases of diphtheria. 129 of these were positive and 297 negative. The positive reactors were inoculated with scarlet fever prophylactic at intervals of 4 days (500, 2,000, 6,000, 15,000 skin test doses).

	Age Periods.												
	Under 1 Yr.	1	2	3	4	5	6	7	8	9	10	Over 10	Totals
Positive....	1	2	8	11	18	21	15	4	12	8	7	22	129
Negative .	....	5	11	21	24	34	33	33	26	18	11	81	297
Totals...	1	7	19	32	42	55	48	37	38	26	18	103	426

Enteric Fever.

Seven cases were certified as having enteric fever, but 1 case proved to be gastro-enteritis.

The average stay in Hospital for all cases discharged well was 68.5 days, and for the 1 fatal case 20 days, a woman aged 42 years died from Toxæmia.

There were no complications.

Puerperal Fever.

Fourteen cases were admitted, but in 3 cases the diagnosis was revised: abortion 1; incomplete abortion 1; empyema (pleural) 1.

There were 2 deaths from this disease.

The 9 discharged cases were classified as follows:—Puerperal fever 5; puerperal sepsis 4; and the 2 fatal cases as puerperal septicæmia.

The average stay in Hospital for the discharged cases was 26.0 days, and for the 2 fatal cases 4.5 days.

Complications in Discharged Cases.—Phlegmasia alba dolens 1.

Complications in Fatal Cases.—Peritonitis 1.

There were 9 babies admitted with their mothers.

Erysipelas.

Seventy-six cases were admitted, but in 18 instances the diagnosis had to be revised.

Two cases terminated fatally.

The average stay in Hospital for the discharged cases was 25.0 days, and for the 2 fatal cases 4.5 days.

Complications of the Discharged Cases.—Bronchitis (chronic) 1; cellulitis (rt. arm) 1; impetigo (face) 1; L. otorrhœa, bronchitis 1; R. otorrhœa keratitis, carbuncle (neck) 1.

The fatal cases were two men aged 65 years and 73 years.

Measles.

A ward was opened for measles, the disease being very prevalent during January, February and March.

192 cases were admitted, but in 19 instances the diagnosis had to be revised; in addition, 4 cases sent in as scarlet fever, 1 as mixed infections, 6 as diphtheria, and 2 other diseases proved to be measles.

There were 26 deaths from this disease.

The average stay in Hospital for the discharged cases was 22.3 days, and for the fatal cases 7.66 days.

Complications of the Discharged Cases.—Abscess R. thigh (incised) 1; adenitis 1; alveolar abscess, bronchopneumonia 1; blepharitis 3; bronchitis 8; bronchitis (O.A.), stye 1; bronchopneumonia 14; bronchopneumonia (O.A.)

abscess (thigh), otorrhœa 2; bronchopneumonia, furuncles 1; bronchopneumonia, otorrhœa 3; cervical abscess (incised) chicken pox (O.A.), ottorrhœa (L.), Corneal ulcer 1; chicken pox 1; conjunctivitis 2; diphtheria (bact.) 1; diphtheria (bact.), bronchopneumonia (O.A.) 1; diphtheria (bact.), otorrhœa (L. and R.) 1; furuncle 1; impetigo 1; impetigo (head and neck O.A.), scald (r. hand) 1; inguinal abscess (O.A.) 1; laryngitis 1; laryngitis, otorrhœa (L. and R.), erysipelas (face) 1; marasmus (O.A.) 1; otorrhœa 12; otorrhœa (L.), furunculosis, varicella, pertussis 1; otorrhœa (L. and R.), acute mastoiditis (L.), Schwartzes operation 1; otorrhœa (L. and R.), bronchopneumonia, lobar pneumonia (R.) 1; otorrhœa (L. and R.) erysipelas (face) 1; otorrhœa L. and R.), mastoiditis (O.A.) 1; otorrhœa (R.), abscess (R. thigh, incised), pemphigus 1; otorrhœa (R.), acute mastoiditis 1; otorrhœa (R.), adenitis, impetigo 1; otorrhœa (R.), laryngitis, whooping cough (incub. O.A.) 1; pneumonia (lobar) 1; rhinitis 1; scarlet fever 2; stye 2; tonsillitis 1; whooping cough 2; whooping cough, adenitis, dermatitis of face 1.

Complications of Fatal Cases.—Bronchopneumonia (O.A.) 14; bronchopneumonia, cellulitis 1; bronchopneumonia, convulsions 1; bronchopneumonia, (O.A.), otorrhœa 1; bronchopneumonia, whooping cough 1; convulsions (O.A.) 1; encephalitis 1; gastro-enteritis 1; otorrhœa (bilateral), subcutaneous abscesses, marasmus, bronchopneumonia 1; otorrhœa (L. and R.), bronchopneumonia, cellulitis (R. leg) 1.

Staff.—On December 31st, 1936, the resident staff of the Sanatorium and Isolation Hospital consisted of the following :—

Medical Superintendent	1
Assistant Medical Officers	2
City Bacteriologist	1
Matron	1
Assistant Matron and Home Sister	1
Stores Sister	1
Sister Tutor	1
Night Sister	1
Ward Sisters	9
Staff Nurses	9
Assistant Nurses	8
Probationers	33
Cook	1
Assistant Cook	1
Domestics	33
Laundress	1
Lodge Porters	2
Total Resident Staff	106

The Non-Resident Staff consisted of :—

Visiting Aural Surgeon	1
Tuberculosis Officers	2
Clerk	1
Junior Clerks	2
Engineer	1
Plumber	1
Joiner	1
Firemen	3
Gardener	1
Assistant Gardeners	2
Porters	5
Seamstresses	2
Cleaners	2
Total Non-Resident Staff	24

HEALTH OF STAFF.—The following were the illnesses :—Abdominal pains 4 ; appendicitis 1 ; boils and abscesses 3 ; burns and scalds 3 ; chicken pox 1 ; colds 9 ; cuts and abrasions 6 ; jaundice 1 ; laryngitis 1 ; measles 3 ; neurasthenia 1 ; pains in chest 1 ; Diphtheria carrier 1 ; septic finger 1 ; septic spots 4 ; sore throat 14 ; synovitis of knee 3 ; tonsillitis 4 ; ulcers after burns 1 ; vomiting 2.

The staff lost 788 working days through illness.

The staff, both nurses and maids, are tested by the Schick and Dick Tests, and, if positive, immunised against diphtheria and scarlet fever.

Forty were Schick tested and 7 were positive—these were inoculated with three doses of Toxoid at fortnightly intervals, and on retest proved to be negative.

Forty-one were tested by the Dick test, 4 being positive—these were inoculated with 500, 2,000, 6,000, 15,000 skin test doses of Scarlatinal toxin, and retest a month later proved 3 to be negative. The other one was positive, but was re-inoculated, and on retest a month later proved to be negative.

One nurse was Schick positive on joining ; later she contracted diphtheria (faucial) in a mild form, and made a complete recovery.

One nurse was Schick negative on joining ; 14 months later was found to be a nasal diphtheria carrier. .

Work of the Training School.—During the year 9 nurses passed the Preliminary and 14 the Final State examinations. The usual course of lectures was given by the Medical Staff and the Sister Tutor.

Operating Theatre.

The number of operations in the theatre was 4, all requiring general anæsthesia; minor operations are not included; numerous incisions were done in the wards, mostly requiring local anæsthesia only.

Particulars of the operations in the theatre are :—

Disease.	Complications.	Operation.	Recov.	Died.	Total.
Diphtheria	—	Tonsillectomy and adenoidectomy	1	—	1
Scarlet Fever	R. & L. Otorrhœa Conjunctivitis.	Tonsillectomy and adenoidectomy	1	—	1
Epithelioma of nose.	Nasal Diphtheria carrier.	Diathermy excision of malignant growth of nose	1	—	1
Scarlet Fever.....	—	Mastoid.....	1	—	1
			4	—	4

Bed Isolation Ward.

This ward contains 16 beds. Each patient is nursed separately from the others and nothing which has been in contact with the patient or anything from his bed is allowed to touch any other patient or bed unless it has been sterilised. This sterilisation is done by steam if possible, or by disinfection with liquid disinfectants. Nurses have to wear separate gowns, and scrub their hands every time they attend a patient.

Free ventilation is also insisted upon.

All diseases, except early Measles or Chicken Pox, were admitted. The ward was busy all through the year, the demand for isolation being always great.

244 cases were admitted during the year, as against 200 in 1935.

The following is a table of the diseases :—

Sent in as :—		Diagnosis after Observation :—	
Scarlet Fever	72	Scarlet Fever	20
		Bronchitis	1
		Diphtheria	3
		Erythema	3
		Influenza	2
		Measles	1
		Measles and Scarlet Fever	1
		Otorrhœa (L.)	1
		Pneumonia	4
		Pyelitis	1
		Rubella	14
		Scarlet Fever and Diphtheria	1
		Seborrhœa	1
		Tonsillitis	18
		Urticaria	1
Diphtheria	103	Diphtheria	58
		Bronchopneumonia	1
		Bronchitis	1
		Diphtheria and Scarlet Fever	2
		Diphtheria and Whooping Cough	1
		Laryngitis	4
		Measles	1
		Meningitis	1
		Observation	1
		Otorrhœa (L.)	1
		Peritonsillar abscess	1
		Positive swab	1
		Rhinitis	1
		Scarlatina Anginosa	1
		Scarlet Fever	6
		Septic Scarlet Fever	1
		Septic Throat	2
		Tonsillitis	18
		Whooping Cough	1
Erysipelas	5	Erysipelas	4
		Carbuncle	1
Whooping Cough	6	Whooping Cough	5
		Gastro-enteritis	1
Mumps	8	Mumps	6
		Mumps and Diphtheria (carrier)	1
		Parotitis	1
Measles	16	Measles	11
		Erythema	1
		Measles and Diphtheria	1
		Rubella	3
Enteric Fever	2	Enteric Fever	2
Chicken Pox	1	Chicken Pox	1
Rubella	1	Erythema	1
Poliomyelitis	5	Poliomyelitis	3
		Arthritis R. ankle	1
		Cerebral hæmorrhage	1
Puerperal Fever	2	Puerperal Sepsis	1
		Incomplete abortion	1
Baby with mother	1	Baby with mother	1
Measles and Pneumonia	1	Measles and Bronchopneumonia	1
Pneumonia and Meningitis	1	Pneumonia	1

Sent in as :—		After Observation :—	
Cerebro Spinal Meningitis	6	Cerebro Spinal Meningitis	1
		Cerebro Spinal Fever	4
		Meningism	1
Bronchitis and Meningitis	1	Cerebro Spinal Fever	1
Meningitis	5	Cerebro Spinal Fever	3
		Pneumococcal Meningitis	1
		Pneumonia	1
Meningococcal Meningitis	2	Cerebro Spinal Fever	2
Meningococcal Meningitis and Nasal Diphtheria	1	Cerebro Spinal Fever	1
Marasmus and Whooping Cough	1	Gastro-enteritis	1
Scalded Arm	1	Scald L. forearm	1
Pneumonia	1	Measles	1
Infantile Paralysis	1	Convulsions	1
Scarlet Fever and Diphtheria	1	Scarlet Fever and Diphtheria	1
	244		244

TABULATION OF CASES WHICH HAVE BEEN CLASSIFIED AS "OTHER DISEASES" AFTER OBSERVATION.

Abdominal pain	3	Meningitis	2
Abortion	1	Mumps	8
Adenitis	1	Observation	13
Arthritis	2	Oedema (face)	2
Bronchitis	9	Otorrhœa	2
Bronchopneumonia	3	Parotitis	1
Scald (L. forearm)	1	Peridental abscess	1
Carbuncle	3	Peritonsillar abscess	5
Cellulitis	1	Pleurisy	2
Cerebral embolism	1	Pleuro-dynia	1
Cerebral hæmorrhage	1	Pneumonia	10
Cerebro-spinal fever	11	Poliomyelitis	3
Cerebro-spinal meningitis	1	Post diphtheritic paralysis	2
Cervical adenitis (bilateral)	1	Post pneumonic pulmonary fibrosis	1
Chicken pox	12	Prepatellar bursitis	2
Cold	2	Purpura hæmorrhagica	1
Conjunctivitis	1	Pustular dermatitis	1
Constipation	1	Pyelitis	1
Convalescing	1	Rhinitis	2
Convulsions	1	Rubella	21
Coryza	7	Salpingitis	1
Empyema (pleural)	1	Septicæmia	1
Epithelioma of nose	1	Septic sore	3
Erythema	15	Septic throat	2
Erythema nodosum	2	Silicosis	1
Furunculosis	1	Sores, face and legs	1
Gastro-enteritis	4	Sprain (Rt. thigh)	1
Gum-boil	1	Tonsillectomy	1
Herpes zoster	2	Tonsillitis	130
Incomplete abortion	1	Urticaria	1
Influenza	7	Varicose eczema	1
Intra-thoracic malignant disease	1	Varicose veins (legs)	1
Laryngismus	2	Vincent's angina	5
Laryngitis	3	Whooping Cough	93
Malaria	2	With mother	9
Meningism	1		440

GENERAL REMARKS.

Work on the new Cubicle Block, 32 beds, is to begin in 1937.

TABLE I.

STATEMENT OF THE NUMBER OF PATIENTS UNDER TREATMENT IN LADYWELL SANATORIUM AND ISOLATION HOSPITAL IN 1936.

	Males.		Females.		Totals
	Under 5 years.	Over 5 years.	Under 5 years.	Over 5 years.	
1.—PATIENTS REMAINING IN HOSPITAL ON DECEMBER 31ST, 1935, AFFECTED WITH :					
Scarler Fever	7	11	7	29	54
Mixed Infections	....	....	1	....	1
Measles	10	6	7	2	25
Enteric Fever	....	....	....	1	1
Diphtheria	8	21	9	40	78
Erysipelas	1	3	....	....	4
Puerperal Fever	....	....	....	2	2
Tuberculosis	....	33	....	20	53
Other Diseases	4	1	3	....	8
Totals	30	75	27	94	226
2.—ADMITTED DURING THE YEAR ENDED DECEMBER 31ST, 1936, AFFECTED WITH :					
Scarlet Fever	103	152	114	204	573
Mixed Infections	11	1	19	4	35
Measles	79	12	78	17	186
Enteric Fever	....	....	....	6	6
Diphtheria	127	182	111	210	630
Erysipelas	....	31	1	26	58
Puerperal Fever	....	....	....	11	11
Tuberculosis	1	154	....	132	287
Other Diseases	113	83	98	146	440
Totals	434	615	421	756	2226
Totals under treatment, 1936	464	690	448	850	2452
3.—OF THE ABOVE THERE WERE DISCHARGED RECOVERED FROM :					
Scarlet Fever	97	143	110	211	561
Mixed Infections	9	1	16	4	30
Measles	75	17	74	19	185
Enteric Fever	....	....	....	6	6
Diphtheria	108	166	92	206	572
Erysipelas	1	29	1	23	54
Puerperal Fever	....	....	....	9	9
Tuberculosis	....	118	....	92	210
Other Diseases	99	74	90	138	401
Totals	389	548	383	708	2028

TABLE I.—continued.

STATEMENT OF NUMBER OF PATIENTS.—continued.

	Males.		Females.		Totals.
	Under 5 years.	Over 5 years.	Under 5 years.	Over 5 years.	
4.—DIED FROM :					
Scarlet Fever	2	2	1	....	5
Mixed Infections	1	....	4	....	5
Measles	14	1	11	....	26
Enteric Fever	....	....	....	1	1
Diphtheria	10	4	13	7	34
Erysipelas	....	2	....	....	2
Puerperal Fever	....	....	....	2	2
Tuberculosis	1	42	....	33	76
Other Diseases	13	7	8	4	32
Totals	41	58	37	47	183
5.—REMAINING IN HOSPITAL ON DECEMBER 31ST, 1936, AFFECTED WITH :					
Scarlet Fever	11	18	10	22	61
Mixed Infections	1	....	....	....	1
Measles	....	....	....	....	....
Enteric Fever	....	....	....	....	....
Diphtheria	17	33	15	37	102
Erysipelas	....	3	....	3	6
Puerperal Fever	....	....	....	2	2
Tuberculosis	....	27	....	27	54
Other Diseases	5	3	3	4	15
Totals	34	84	28	95	241

TABLE II.

MONTHLY STATEMENT OF PATIENTS FOR THE YEAR ENDED DECEMBER 31ST, 1936; TOGETHER WITH A COMPARISON WITH THE YEAR 1935, AND WITH THE MEAN OF THE FIVE (5) AND FIFTY-THREE (53) YEARS ENDED DECEMBER 31ST, 1935.

Month.	Admissions, 1936.	Admissions, 1935.	Mean of Admissions, 5 years, 1931-1935.	Mean of Admissions, 53 years, 1883-1935.	Daily Average No. of Patients in Hospital, 1936.	Daily Average No. of Patients in Hospital, 1935.	Mean of Daily Average No. of Patients in Hospital, 5 years, 1931-1935.	Mean of Daily Average No. of Patients in Hospital, 53 years, 1883-1935.
January.....	230	244	182.6	125.4	246.1	312.0	255.34	155.0
February.....	232	197	173.4	105.0	249.4	315.5	259.94	148.5
March.....	220	204	187.4	112.0	258.9	270.8	255.62	187.5
April.....	141	213	172.0	105.3	224.5	266.5	248.16	133.9
May.....	163	167	169.4	109.3	213.6	227.0	232.28	130.4
June.....	175	131	150.2	105.7	206.7	203.9	217.02	125.8
July.....	179	160	149.6	114.0	241.3	206.5	211.7	133.8
August.....	179	160	139.2	111.2	230.2	219.7	204.66	134.7
September.....	161	165	175.8	135.0	225.0	229.7	216.22	149.1
October.....	189	190	220.6	159.8	240.4	241.8	251.06	170.5
November.....	185	200	209.8	147.7	274.9	264.0	273.72	182.3
December.....	172	173	185.2	130.3	245.7	245.0	269.86	170.3
Totals.....	2226	2204	....	....	....	....	....	....
M'thly Averages	185.6	183.6	176.2	124.2	238.0	250.2	241.29	151.8

TABLE III.

SHOWING THE NUMBER OF ADMISSIONS OF THE PRINCIPAL INFECTIOUS DISEASES FOR THE YEAR ENDED DECEMBER 31ST, 1936; ALSO A COMPARISON WITH THE YEAR 1935, AND WITH THE YEAR 1935, AND WITH THE MEAN OF THE FIVE YEARS AND FIFTY-THREE YEARS ENDED DECEMBER 31ST, 1935.

Month.	Scarlet Fever.	Mixed Infections.	Measles.	Enteric Fever.	Typhus Fever.	Diphtheria.	Erysipelas.	Puerperal Fever.	Smallpox.	Tuberculosis.	Other Diseases.	Totals.
January.....	50	6	61	....	....	36	6	....	....	36	35	230
February.....	49	7	53	....	....	47	5	1	....	27	43	232
March.....	50	2	41	....	....	40	9	4	....	27	47	220
April.....	27	2	13	1	....	43	5	1	....	15	34	141
May.....	44	2	3	....	....	36	5	....	....	27	46	163
June.....	51	2	3	1	....	49	2	....	....	33	34	175
July.....	47	1	8	....	....	65	7	1	....	17	33	179
August.....	48	5	2	....	....	63	4	1	....	21	35	179
September.....	42	2	2	2	....	64	2	....	....	17	30	161
October.....	55	3	....	....	....	53	3	1	....	33	41	189
November.....	60	1	....	2	....	60	6	1	....	22	33	185
December.....	50	2	....	....	....	74	4	1	....	12	29	172
Totals, 1936.....	573	35	186	6	....	630	58	11	....	287	440	2226
Totals, 1935.....	646	29	83	6	....	672	92	25	....	281	370	2204
Increase, 1936..	....	6	103	....	....	....	....	....	....	6	70	185
Decrease, 1936..	73	....	....	....	....	42	34	14	....	....	....	163
Mean of 5 years 1931–1935.....	568.2	44.6	67.4	7.6	....	759.6	68.4	22.8	....	267.0	309.6	2115
Mean of 53 years— 1883–1935.....	799.9	8.2	10.6	104.2	4.0	269.5	37.3	12.4	11.4	75.2	147.4	1480.5

TABLE IV.

ANNUAL STATEMENT.

Disease.	No. of Cases Remaining on Dec. 31st, 1935.	No. of Cases Treated.	No. of Cases Admitted.	No. of Cases Discharged.	No. of Deaths.	No. of Cases Remaining on Dec. 31st, 1936.
Scarlet Fever.....	54	627	573	561	5	61
Mixed Infections.	1	36	35	30	5	1
Measles	25	211	186	185	26	....
Enteric Fever	1	7	6	6	1	....
Diphtheria.....	78	708	630	572	34	102
Erysipelas.....	4	62	58	54	2	6
Puerperal Fever	2	13	11	9	2	2
Tuberculosis.....	53	340	287	210	76	54
Other Diseases....	8	448	440	401	32	15
Totals	226	*2452	†2226	2028	183	‡241
Corresponding figures, 1935		2502	2204	2140	136	226
Average, five years		2374	2115	1987.4	135.8	251.4

CASES FROM "OUT-DISTRICTS."

1936	*477	†425	‡78
Corresponding figures, 1935	468	419	52

TABLE V.—Diseases Admitted.

HOSPITAL DIAGNOSIS.

Cases sent in as	Total sent in.	Scarlet fever.	Mixed infections.	Measles.	Enteric fever.	Diphtheria.	Erysipelas.	Puerperal fever.	Tuberculosis.	Abdominal pain.	Abortion.	Adenitis.	Arthritis.	Bronchitis.	Bronchopneumonia.	Burn (l. forearm).	Carbuncle.	Cellulitis.	Cerebral embolism.	Cerebral hæmorrhage.
Scarlet Fever ...	636	557	8	4		5								1						
Mixed Infections	18	3	6	1		2								1						
Measles	192	1	4	173										2						
Enteric Fever...	7				6															
Diphtheria.......	782	10	14	6		621								1	1				1	
Erysipelas	76	1					58										3	1		
Puerperal Fever	14							11			1									
Tuberculosis.....	299								287						1					
Other Diseases..	202	1	3	2		2				3		1	2	4	1	1				1
	2226	573	35	186	6	630	58	11	287	3	1	1	2	9	3	1	3	1	1	1

Cases sent in as	Cerebro-Spinal fever.	Cerebro-Spinal meningitis.	Cervical adenitis (bilateral).	Chicken pox.	Cold.	Conjunctivitis.	Constipation.	Convalescing.	Convulsions.	Coryza.	Empyema (pleural).	Epithelioma of nose.	Erythema	Erythema nodosum.	Furunculosis.	Gastro-enteritis.	Gum-boil.	Herpes zoster.	Incomplete abortion.	Influenza.
Scarlet Fever ...				1									8			1				4
Mixed Infections	1												1							
Measles	1						1			4			3							1
Enteric Fever...																1				
Diphtheria.......										1										
Erysipelas																	1	2		1
Puerperal Fever											1								1	
Tuberculosis.....																				
Other Diseases..	9	1	1	11	2	1		1	1	2		1	3	2	1	2				1
	11	1	1	12	2	1	1	1	1	7	1	1	15	2	1	4	1	2	1	7

Cases sent in as	Intra-thoracic malignant disease.	Laryngismus.	Laryngitis.	Malaria.	Meningism.	Meningitis.	Mumps.	Observation.	Oedema (face).	Otorrhœa.	Parotitis.	Peridental abscess.	Peritonsillar abscess.	Pleurisy.	Pleuro-dynia.	Pneumonia.	Poliomyelitis.	Post diphtheritic paralysis.	Post pneumonic pulmonary fibrosis.	Prepatellar bursitis.
Scarlet Fever ...																6				
Mixed Infections																1				
Measles																1				
Enteric Fever...																				
Diphtheria.......			3					5		1			5					2		
Erysipelas									2	1		1								
Puerperal Fever																			1	
Tuberculosis.....	1							6						1		1				
Other Diseases..		2		2	1	2	8	2			1			1	1	1	3			2
	1	2	3	2	1	2	8	13	2	2	1	1	5	2	1	10	3	2	1	2

Cases sent in as	Purpura hæmorrhagica.	Pustular dermatitis.	Pyelitis.	Rhinitis.	Rubella.	Salpingitis.	Septicæmia.	Septic sore.	Septic throat.	Silicosis.	Sores, face and legs.	Sprain right thigh.	Tonsillectomy.	Tonsillitis.	Urticaria.	Varicose eczema.	Varicose veins (leg).	Vincent's angina.	Whooping cough.	With mother.
Scarlet Fever ...			1		19				1					17	1				2	
Mixed Infections																			2	
Measles	1																			
Enteric Fever...																				
Diphtheria.......				2			1		1				1	100				5	1	
Erysipelas								2			1					1	1			
Puerperal Fever																				
Tuberculosis.....										1										
Other Diseases..		1			2	1		1				1		13					88	9
	1	1	1	2	21	1	1	3	2	1	1	1	1	130	1	1	1	5	93	9

TABLE VI.

Sent in as :—		After Observation :—	
Abdominal pain	3	Abdominal pain	2
		Salpingitis	1
Acute Poliomyelitis	1	Arthritis	1
Blister on Leg	1	Prepatellar Bursitis	1
Bronchopneumonia	1	Bronchopneumonia	1
Cerebro-spinal Meningitis	6	Cerebro-spinal Fever	4
		Convulsions and broncho-pneumonia	1
		Meningism	1
Chicken Pox	14	Chicken Pox	11
		Erythema	3
Cold	2	Cold	2
Coryza	1	Coryza	1
Epithelioma of Nose	1	Epithelioma of Nose	1
Erythema Nodosum	1	Erythema Nodosum	1
Fainting	1	Abdominal pain	1
Infantile Paralysis	1	Convulsions	1
Influenza	1	Influenza	1
Injury to Rt. Thigh	1	Sprain Rt. Thigh	1
Laryngeal Croup	1	Diphtheria	1
Marasmus	1	Gastro-enteritis	1
Malarial Fever	2	Malarial Fever	2
Mastoiditis	1	Furuncle (L. ear) and Chicken Pox (incub.)	1
Meningitis	5	Meningitis	2
		Cerebro-spinal Fever	2
		Pneumonia	1
Meningococcal Meningitis	3	Cerebro-spinal Fever	3
Mumps	12	Mumps	8
		Adenitis	1
		Cervical Adenitis (bilateral)	1
		Mumps and Diphtheria Carrier	1
		Parotitis	1
Observation	2	Observation	2
Ophthalmia Neonatorum	1	Conjunctivitis	1
Pain in Back	1	Erythema Nodosum	1
Pemphigus Neonatorum	1	Pustular Dermatitis	1
Pleurisy	1	Pleurisy	1
Pleuro-dynia	1	Pleuro-dynia	1
Pneumonia	3	Measles	2
		Whooping Cough	1
Poliomyelitis	4	Acute Anterior Poliomyelitis	3
		Cerebral Hæmorrhage	1
Rubella	2	Rubella	2
Scalded Arm	1	Scald (L. forearm)	1
Septic Rt. Wrist	1	Furunculosis	1
Septic Sore (L. forearm)	1	Septic Sore (L. forearm)	1
Sore Throat	11	Tonsillitis	10
		Coryza	1
Synovitis (Rt. knee)	2	Arthritis	1
		Prepatellar Bursitis	1
Tonsillitis	5	Tonsillitis	4
		Diphtheria	1
Whooping Cough	95	Whooping Cough	87
		Bronchitis	4
		Convalescing	1
		Gastro-enteritis	1
		Laryngismus	2
With mother	10	With mother	9
		Scarlet Fever	1
	202		202

Immunisation against Diphtheria.

The year 1936 saw the end, in July, of the special campaign against diphtheria instituted in August, 1935, which involved the employment, for a period of approximately twelve months, of a whole-time Immunising Medical Officer (Dr. E. Davis) and the necessary complementary staff which consisted of a nurse and a clerk. Practically the whole of Dr. Davis' time was devoted to the immunisation of school children at a large number of schools in the City, and other children and members of the public who attended the public clinics which were held on two half-days in each week. To a very great extent the immunisation of children under school age was carried out by the Maternity and Child Welfare Officers at their clinics and centres. While on Dr. Davis' appointment, and for the greater part of his engagement, a large number of school children were allowed by their parents to be immunised, it was found towards the end of his appointment that there was difficulty in obtaining a regular and adequate supply of subjects volunteering for the course. To a large extent this lack of enthusiasm on the part of the parents was due, in my opinion, to the absence of severe outbreaks of diphtheria at that period, and to the consequent failure on the parents' part to realise the desirability of securing protection for their children. In spite of this fact, however, great progress was made towards the goal of securing the immunisation of a large proportion of the child population of the City, for the number of cases completely immunised during the period from September, 1935, to the end of July, 1936, was 3,503, in addition, of course, to a considerable number who partially completed the course.

At this point it may be of interest to note that the total number of cases which have received a complete course of inoculations since the inception of immunisation in Salford in September, 1929, until the end of 1936 is 9,221, and out of this number only 51, or 0.55 per cent. developed true diphtheria.

The following statistics relate to the work in connection with immunisation carried out in the Department during the whole of 1936.

PERSONS COMPLETING THE COURSE DURING 1936.

	Number of persons.
Public Clinics	218
Maternity and Child Welfare Clinics and Centres	942
Various Schools	2,020
Ladywell Sanatorium.—Patients	46
Staff	7
	3,233

ATTENDANCES AT CLINICS AND SCHOOLS DURING 1936.

	Number of attendances.
Public Clinics	1,386
Maternity and Child Welfare Clinics and Centres	5,043
Various Schools	9,775
	16,204

As compared with 1935 there was an increase in the number of persons who completed the course of 1,144, and a decrease in the number of attendances at Clinics and Schools from 29,673 to 16,204. The fall in attendances is due to the fact that when Dr. Davis commenced operations in 1935 a large number of school children, whose parents had already given their consent, were awaiting immunisation. Most of these were dealt with early in 1936 and, as already stated, before the end of Dr. Davis' year of service the supply of new volunteers had fallen off very considerably.

An encouraging feature of the year's campaign was the progress made in the Maternity and Child Welfare Department, for, as will be observed from the figures given above, nearly 1,000 children under five years of age completed the course of immunisation at the Maternity and Child Welfare Clinics and Centres during the year. The Medical Officers themselves showed great interest in the subject of immunisation, and the Health Visitors were encouraged to attempt, as a routine procedure, to persuade parents of young children to allow them to be immunised at the Maternity and Child Welfare Clinics and Centres. While it was not found possible to approximate to a 100 per cent. response from parents, the results have been very promising, particularly when it is borne in mind that the pre-school years are the most important from the standpoint of immunisation.

In concluding this report I desire to express my appreciation of the enthusiasm and energy displayed by Dr. Davis; he was most painstaking and tireless in his efforts, and if the material had been forthcoming, would have obtained even better results.

SECTION IIIA.

Venereal Diseases Scheme.

ANNUAL REPORT, 1936.

I have the honour to submit the Ninth Annual Report on the working of the Municipal Clinic for the diagnosis and treatment of Venereal Diseases.

The Annual Return to the Ministry of Health, Form V.D. (R), embraces the calendar year from 1st January to 31st December, 1936. This form is attached to the present Report.

Colonel E. Tytler Burke, D.S.O., was in charge of the Clinic for the first three months of the year. He took charge of the Whitechapel Clinic, London County Council, on 1st April, 1936, on which date I was appointed to the post of Venereal Diseases Officer to the City of Salford. For the first two months the work had to be carried on with the assistance of a locum Medical Officer, the present Assistant Medical Officer, Dr. Webster, being appointed on 1st June, 1936.

The sessions for Medical Officers were rearranged. Two afternoon sessions and one morning session were added, and one evening session abolished. This arrangement has proved successful, as the number of attendances has risen from 89,777 (1935) to 97,797 (1936).

New Cases.

There were 1,961 new cases dealt with during the year under review. Out of this number, 1,020 patients were found to be suffering from Venereal Diseases, and the remaining 941 cases were found to be suffering from conditions other than Venereal. Legally, Venereal Diseases comprise Syphilis, Gonorrhœa and Chancroid. The patients with previous Gonorrhœa and Syphilis, or those suffering from simple Urethritis, purulent Balanitis, Condylomata Accuminata, Scabetic Lesions on Genitals and Paraphimosis usually apply for advice at the Clinic, and these patients swell the number of cases labelled "Non-Venereal." In the majority of these cases there has been sexual exposure to venereal diseases.

The New Cases embrace the Items 3 and 4 of the Annual Return to the Ministry of Health—Form V.D. (R). Table I shows these cases classified as venereal and non-venereal patients for the past 18 years.

TABLE I.

Year.	V.D. Cases.	Non-V.D. Cases.	Total Cases.
1919	782	477	1,259
1920	467	465	932
1921	485	659	1,144
1922	336	717	1,053
1923	422	615	1,037
1924	446	101	547
1925	375	162	537
1926	319	150	469
1927	345	133	478
1928	880	340	1,220
1929	1,261	704	1,965
1930	1,233	1,067	2,300
1931	1,125	1,071	2,196
1932	1,055	1,063	2,118
1933	1,079	999	2,078
1934	1,062	909	1,971
1935	976	904	1,880
1936	1,020	941	1,961
Total	13,668	11,477	25,145

There were 283 patients suffering from Syphilis, 673 from Gonorrhœa and 64 from Chancroid. Thus, there is a 0.6 per cent. increase in Syphilis cases, a 1.6 per cent. decrease in Gonorrhœa cases and 1.2 per cent. increase in Chancroid cases, as compared with the year 1935.

In Table II Venereal Cases are further analysed under their disease headings, and the percentage rates are also indicated. It will be seen from this table that, although there were more Syphilis Cases in 1936 than in 1935, the percentage rate of Syphilis Cases is very much lower if it is compared with the figures for the year 1929. The percentage rate in 1929 was 23, as against 14.4 in 1936. This is in agreement with the findings throughout the country. That is to say, there has been a gradual diminution of Syphilis patients during the past ten years. Unfortunately, the same cannot be said for Gonorrhœa.

TABLE II.

Year.	Disease.				Percentage.			
	Sy.	G.	Ch.	N.V.	Sy.	G.	Ch.	N.V.
1919	440	341	1	477	34.7	27.0	0.07	38.2
1920	239	228	—	465	25.7	24.4	—	49.9
1921	195	286	4	659	17.0	25.0	0.30	57.7
1922	101	235	—	717	9.6	22.3	—	68.1
1923	139	283	—	615	13.4	27.2	—	59.4
1924	164	282	—	101	29.7	51.5	—	18.8
1925	141	234	—	162	26.2	43.5	—	30.3
1926	128	191	—	150	27.2	40.7	—	32.1
1927	132	213	—	133	27.6	44.5	—	27.9
1928	266	599	15	340	21.8	49.0	1.00	28.2
1929	439	743	20	701	23.0	39.0	1.00	37.0
1930	437	776	20	1,067	19.0	33.7	0.80	46.5
1931	424	699	2	1,071	19.3	31.8	0.09	48.8
1932	413	639	3	1,063	19.4	30.1	0.10	50.4
1933	338	722	19	999	21.1	34.7	0.90	52.3
1934	262	721	79	909	13.2	36.5	4.00	46.3
1935	259	678	39	904	13.8	36.0	2.10	48.1
1936	283	673	64	941	14.4	34.4	3.30	47.9
Total	4,800	8,543	266	11,474	19.1	34.1	1.1	45.7

VENEREAL PATIENTS ONLY.

Sex Incidence. There were 790 male and 230 female new patients suffering from Venereal Diseases. Compared with 1935, there was an increase in the number of male patients, and an equal decrease in the number of female patients. The annual incidence of new Venereal Cases classified according to sex is shown in Table III. It will be seen from this table that for every woman suffering from venereal disease there are nearly four men with the same condition.

TABLE III.

Year.	Males.	Females.	Percentage Males.	Percentage Females.
1919	599	183	76.6	23.4
1920	361	106	77.5	22.5
1921	402	83	82.1	17.9
1922	268	68	79.8	20.2
1923	366	56	86.8	13.2
1924	366	80	82.1	17.9
1925	309	66	82.4	17.6
1926	256	63	80.3	19.7
1927	280	65	81.2	18.8
1928	761	119	86.5	13.5
1929	1,080	181	85.7	14.3
1930	1,002	231	81.3	18.7
1931	920	205	81.8	18.2
1932	810	245	76.8	23.2
1933	822	257	76.2	23.8
1934	825	237	75.6	24.4
1935	741	235	75.9	24.1
1936	790	230	77.5	22.5
Total	10,958	2,710	80.9	19.1

Fresh Infections and Old Infections. A " Fresh Infection " is defined as one in which the disease is less than twelve months old, and an " Old Infection " is one where it has been in existence for more than a year.

The figures in Table IV represent a very satisfactory state of affairs. Thus, of 6,255 new male cases of Venereal Disease during the past eight years, 5,419, or 86.6 per cent., were infections of less than twelve months' duration.

TABLE IV.

(Males).

Year.	Fresh Infections.				Old Infections.			
	Sy.	Gon.	Ch.	Total.	Sy.	Gon.	Ch.	Total.
1929.....	32	639	20	691	23	18	—	41
1930.....	192	575	20	787	134	81	—	215
1931.....	148	564	2	714	96	21	—	117
1932.....	201	466	3	670	107	11	—	118
1933.....	97	511	19	627	106	19	—	125
1934.....	86	489	77	652	72	15	—	87
1935.....	94	490	38	622	50	13	—	63
1936.....	122	474	60	656	67	3	—	70
Total	972	4,208	239	5,419	655	181	—	836

The corresponding figures for female cases will be found in Table V.

TABLE V.

(Females).

Year.	Fresh Infections.				Old Infections.			
	Sy.	Gon.	Ch.	Total.	Sy.	Gon.	Ch.	Total.
1929.....	74	86	—	160	21	—	—	21
1930.....	53	99	—	152	58	21	—	79
1931.....	51	74	—	125	52	9	—	61
1932.....	39	103	—	142	61	15	—	76
1933.....	38	144	—	182	40	14	—	54
1934.....	23	145	—	168	33	20	—	53
1935.....	25	136	—	161	33	13	—	46
1936,.....	37	158	—	195	22	5	—	27
Total	340	945	—	1,285	320	97	—	417

It will be seen from this table that out of 1,702 new female cases during the past eight years, 1,285, or 75.5 per cent., were infections of no longer duration than one year.

If the two sexes are taken together, it is found that out of all new cases dealt with from 1929 to 1936 inclusive, 84 per cent. were fresh infections. This indicates that a high proportion of persons suffering from Venereal Disease in its early and curable stage take advantage of the services offered by the Municipal Clinic.

Attendances.

There were 97,797 total attendances in the year 1936. The rise is in both intermediate and Medical Officers' treatment. There has also been an increase in the number of new cases. It will be seen from Table VI, where the attendances for the respective years are analysed, that there has been a definite increase in attendances since 1932.

TABLE VI.
Attendances.

Year.	Intermediate.	Medical Officer.	Total Attendances.
1924	5,238	10,062	15,300
1925	5,991	9,723	15,714
1926	5,769	9,406	15,175
1927	5,881	9,688	15,569
1928	26,155	9,348	35,503
1929	44,443	26,163	70,606
1930	53,958	38,996	92,954
1931	60,216	40,706	100,922
1932	58,981	42,485	101,466
1933	55,700	39,028	94,728
1934	59,739	36,767	96,506
1935	55,321	34,656	89,977
1936	60,267	37,530	97,797
Total	497,659	344,558	842,217

Defaulters.

There were 373 patients suffering from Venereal Disease who ceased to attend. This number makes a defaulter rate of 11.4 per cent. The actual number of dangerous defaulters, that is those in the infectious stage, was 210, or 6.4 per cent. The others ceased attending during the non-infectious stage and during tests for cure. Table VII shows the figures of defaulters for the past 18 years.

TABLE VII.

Year.	Defaulters.		
	Dangerous.	Others.	Total.
1919	110	—	110
1920	217	—	217
1921	207	—	207
1922	185	4	189
1923	24	—	24
1924	168	—	168
1925	172	—	172
1926	74	—	74
1927	700	—	700
1928	40	293	333
1929	275	121	396
1930	237	222	459
1931	295	127	422
1932	290	118	408
1933	320	131	451
1934	292	150	442
1935	207	173	380
1936	210	163	373
Total	4,023	1,502	5,525

Syphilis.

The new cases of Syphilis during the year 1936 are analysed as follows :—

TABLE VIII.

Stage.	Degree.	Male.	Female.	Total.
Acute	I. Sero-neg. primary	42	4	46
	II. Sero-pos. primary	38	10	48
	III. Early secondary	2	4	6
	IV. Late secondary	21	17	38
	Total Acute Stage	103	35	138
Chronic	V. Endosyphilis	46	16	62
	VI. Tertiary and Visceral	22	5	27
	VII. Neurosyphilis	18	3	21
	VIII. Congenital syphilis	12	7	19
	Total Chronic Stage	98	31	129
	Grand Total	201	66	267

It will be seen that sero-negative primary syphilis heads the list of the acute stage in the male sex, and that cases of late secondary syphilis heads the list in the female sex. There were actually 138 new patients suffering from acute syphilis and 129 cases suffering from syphilis in the chronic stage. The endo-syphilitic patients head the list of chronic syphilis in both sexes. These cases have had syphilis in the past, and have had sufficient treatment to clear their symptoms, but insufficient to cure them serologically and biologically. Their predominant sign of syphilis is a strongly positive Wassermann reaction of the blood.

The classification of syphilis into eight groups is found very useful, both from the point of view of treatment and prognosis. Our aim has been to achieve 100 per cent. cure in the early-acute syphilis (ɛI, ɛII, ɛIII, and ɛIV). These are cases that are most amenable to treatment; and if we concentrate on their treatment and achieve the biological cure, the column of chronic cases should diminish and eventually disappear in the immediate future.

My predecessor, Colonel E. Tytler Burke, D.S.O., has evolved a Scheme of Treatment for patients suffering from syphilis in the acute stage, which has proved very efficient indeed. His methods of treatment have been strictly adhered to during the past year. His most useful contribution to British Syphilology has been a method of determining an efficiency index of treatment in any given case of acute syphilis. It is found that if the index is over seventy the patient is cured clinically, serologically and biologically.

Treatment of Syphilis.

The remedial agents in routine use for the treatment of acute syphilis are Stabilarsan and Bivatol. These are given alternately, without rest periods, until the efficiency index is found to be over seventy.

Stabilarsan consists of one molecule of Arspenenamine base-dioxy-diamino-arsenobenzol—linked up with two molecules of glucose. Its chemical name is Arsphenamine Diglucoside. It is a preparation in solution issued in ampoules ready for use, and on this account it is very useful in a busy Clinic. Time is saved and the risk of contamination avoided, as there is a minimum amount of manipulation. In the majority of cases it is given twice weekly intravenously, in doses of 0.45 gramme.

Bivatol is a lipo-soluble Bismuth preparation. It is put up in 2 c.c. ampoules —0.07 gramme Bismuth Metal. This amount is given intramuscularly twice weekly. Its action is almost equal to that of the Neo-arsphenamine preparations.

The remedial agents in routine use for the treatment of chronic syphilis are Stabilarsan, Neosilver-Salvarsan, Tryparsamide, Stovarsol and Chlorostab, the last being a Bismuth preparation. These remedies are prescribed according to the stage of the disease and the condition of the patient.

In addition to the above preparations, Collosol Iodine 0.8 per cent. and Collosol Mercury Sulphide are used as adjuvants.

Collosol Iodine 0.8 per cent. is used instead of Potassium Iodide. It is given intravenously in 5 c.c. doses twice weekly for four weeks.

Collosol Mercury Sulphide is given intramuscularly in doses of 5 c.c. twice weekly. It is of value as a therapeutic agent as it clears Syphilitic Lesions quickly, but it is not as potent as lipo-soluble Bismuth in reversing Positive Wassermann. Its chief use is in acute cases of Syphilis which have developed dermatitis during Neo-arsphenamine or Bismuth Treatment. Collosol Mercury Sulphide is superior to Sodium Thiosulphate in such cases. Another advantage is that it is given intramuscularly, as the majority of cases of exfolliative arseno-benzol dermatitis develop œdema and swelling of the elbows, and the veins are difficult to find when injections of Sodium Thiosulphate need to be given. Although it is said that Sodium Thiosulphate can be given intramuscularly, my observation is that it is definitely painful if it is given outside a vein.

On the whole, the treatment of patients suffering from the acute stages does not present difficulties, and satisfactory results are obtained in the majority of cases. In the case of patients in the chronic stages of Syphilis, many factors have to be considered—the stage of the disease, its duration, the age of the patient and his general condition, etc. Thus, a patient with a strongly positive reaction, 70 years of age, with albuminuria, arteriosclerosis and general weakness often comes to the Clinic wishing that something should be done for him. All these factors have to be taken into consideration before treatment is advised.

It is hoped that by treating early cases adequately, and by getting them at that stage, the late chronics will gradually diminish.

Gonorrhoea.

In the past nine years the number of new patients suffering from Gonorrhœa have been more or less stationary. This form of Venereal Disease presents many difficulties from the Public Health and Medical points of view. The treatment of Gonorrhœa is more tedious than that of Syphilis, as the patients are required to attend daily for treatment. Many patients cannot attend regularly, others cease to attend before undergoing tests of cure.

In 1936 there were 632 fresh cases of Gonorrhœa, 474 male and 158 female patients.

Gonorrhoea in the Male Sex.

Every patient suffering from urethral discharge on his first visit to the Clinic is examined clinically and bacteriologically before the diagnosis of

gonorrhœa is established. This is important, as every urethral discharge is not gonorrhœal, although the majority are so. It is found in the Municipal Clinic that nearly 5 per cent. of urethral discharges are not caused by gonococci. If there is any doubt as to the cause of the discharge, urethral smears are re-examined, Gonorrhœal Complement Fixation Tests are carried out and a suitable culture is inoculated with urethral pus, as a wrong diagnosis may have serious and far-reaching consequences for the patient, his family and the medical attendant.

Once the diagnosis of Gonorrhœa is made in the case of a male patient, we go further in the Municipal Clinic and ascertain if the posterior urethra is affected. The following is the method adopted :—The anterior urethra is washed with two pints of clear fluid and then the patient is asked to urinate. If the urine is clear anterior urethritis is diagnosed and the appropriate treatment given. If, on the other hand, the urine is hazy or cloudy, it is assumed that the posterior urethra is affected.

It was found during the past year (1936) that out of 474 fresh male cases of gonorrhœa, 33.10 per cent. were anterior and 66.46 per cent. posterior on their first visit to the Clinic. This is presented in Table IX, and is not a satisfactory state of affairs, as it is desirable to get a greater percentage of cases in their anterior stage. The treatment is then shorter, and patients are less liable to have complications.

TABLE IX.

Fresh Cases of Gonorrhoea in the Male Sex—1936.
Stage of Disease.

	No.	Per cent.
Anterior infections	157	33.10
Posterior infections	315	66.46
Infants	2	0.44
Total	474	100.00

Age Groups.

The patients suffering from Gonorrhœa are analysed according to their ages. The results of this investigation are tabulated in Table X. As would be expected, the greatest number of patients suffering from Gonorrhœa are between 26 and 40 years of age. In other words, Gonorrhœa is acquired by the largest percentage of male patients during their active sexual life.

TABLE X.

New Male Patients with Gonorrhoea.

Age Groups.

Age.	No.	Per cent.
1 to 15 years	2	0.42
16 to 25 years	169	35.43
26 to 40 years	256	53.67
41 to 50 years	39	8.17
51 to 70 years	11	2.31
Total	477	100.00

Marital Status.

If the incidence of Gonorrhœa is to be taken as an indication of sexual morality, it is found that the sexual morality of the unmarried men in the population for which the Municipal Clinic caters is not high. Thus, 57.02 per cent. of men suffering from Gonorrhœa were single, 41.51 per cent. were married and there were only 7 widowers.

TABLE XI.

Gonorrhoea in the Male Sex.

Marital Status.

	No.	Per cent.
Married	198	41.51
Single	272	57.02
Widowers	7	1.47
Total	477	100.00

District where Infection took Place.

It is taken for granted that Venereal Diseases are more prevalent in the towns than in the country districts. As far as Gonorrhœa is concerned I have endeavoured to find the place of infection in respect of 233 male patients who attended this Clinic in 1936. My investigations are tabulated in Table XII.

TABLE XII.
Gonorrhoea in the Male Sex—1936.
District where Infection took Place.

District.	No.	Per cent.
Salford	31	13.31
Manchester	86	36.91
Lancashire County	24	10.30
Other parts of British Isles	63	27.04
Abroad	29	12.44
Total	233	100.00

By Whom Infected.

I have also endeavoured to ascertain the number of men infected by prostitutes or otherwise. The results of this enquiry are shown in Table XIII. It will be seen that only 29.14 per cent. of male Gonorrhœa cases were infected by prostitutes.

TABLE XIII.
New Cases of Gonorrhoea in the Male Sex—1936.
By whom Infected.

	No.	Per cent.
Prostitute	139	29.14
Amateur	216	45.28
Regular Partner	3	0.63
Source not known	117	24.53
Infants	2	0.42
Total	477	100.00

Alcohol and Gonorrhoea.

The investigations tabulated in Tables IX, X, XI, XII and XIII were undertaken in order to throw some light on the etiology of Gonorrhœa in the male patients attending for the first time. The results would be incomplete if the factor of alcohol were omitted.

Alcohol in moderation is a food that does not require previous digestion. Its action on the brain is to stimulate and then to depress. Usually the first thing that happens in a person taking alcohol to excess is the abolition of the latest acquired functions. Thus, the functions of judgment and self-control go first, and the emotions are given free play.

Alcohol lowers the resistance of patients suffering from Gonorrhœa, and those who take alcohol usually develop complications and take a longer time to cure. Every patient suffering from Gonorrhœa is advised to abstain from taking alcohol until he is pronounced free from the disease.

In order to give an indication of the role played by alcohol in causing men to stray from the path of virtue and acquire Gonorrhœa, I have investigated 477 cases of this disease during the year under review. It will be seen from TABLE XIV that 15.52 per cent. were drunk at the time they were infected, 49.68 per cent. had had some alcohol and 34.38 per cent. were sober.

TABLE XIV.
Alcohol and Gonorrhoea.

Condition.	No.	Per cent.
Drunk	74	15.52
Had some Alcohol	237	49.68
Sober	164	34.38
Infants	2	0.42
Total	477	100.00

Treatment of Gonorrhoea in the Male Sex.

In spite of pessimism in the Medical Press, the therapy is not so hopeless as is believed. It is found in the Municipal Clinic that if the patient is started on treatment when only the anterior urethra is affected, if he attends daily, avoids alcohol and sexual excitement, the discharge disappears within four weeks and gonococci cannot be recovered. The difficulty is with patients who already have posterior urethritis, who cannot attend regularly, or who misbehave themselves by indulging in alcohol, sexual excitement and even sexual intercourse. These are the patients who develop epididymitis or arthritis and take a longer time to get rid of their infection.

The principle adopted in this Clinic is to treat Anterior Urethritis by washing the anterior urethra only ; twice daily if possible, to examine urethral discharge daily and to chart urines. Massage of the prostate gland is not given to patients who have never had posterior urethritis. Nevertheless, during the tests for cure the prostate gland is massaged after provocation, and the excretion examined microscopically and cultured.

No known case of Gonorrhœa is considered cured unless his smears, after two provocations, are negative ; and he has had urethroscopic examination, cultural and Complement Fixation Tests. Tests of cure usually take a longer time than that taken to cure a gonorrhœal anterior urethritis.

Gonorrhoea in the Female Sex.

There were 158 new female patients who attended for the first time in the year 1936. The majority of them had no symptoms apart from vaginal discharge. The same criteria is adopted in diagnosing Gonorrhœa in the female sex as in the male. In female patients the diagnosis is much more difficult than in the male—at times smears have to be re-examined, provocative vaccines given, and Cultural and Complement Fixation Tests performed before definite evidence of gonorrhœal infection is obtained and a diagnosis made.

Thus, the diagnosis of Gonorrhœa in the male may be only a matter of 10 minutes, whereas in the female it may be weeks in some cases. Usually the best time for the diagnosis of Gonorrhœa in the female sex is immediately after the cessation of the menstrual period, when cervical and urethral smears are taken.

The treatment of Gonorrhœa in the female sex is not so satisfactory as in the male. It takes a longer time and even if the patients are regular in attendance they have to miss treatment during menstrual periods. This usually means absence for a week each month, and this is probably the time when many gonorrhœal germs come to the surface and many also dig themselves deeper into the tissues.

If a female patient relapses during the routine course, she is given Chloramine " T " Treatment according to the method of Dr. Anwyl Davies. This treatment was started in April, 1936, and the results so far are satisfactory.

Chancroid.

There were 60 patients suffering from Chancroid during 1936. The majority of them were seamen. Every sore is craped, the serum subjected to dark ground examination, and is suspected to be syphilitic in nature until it is proved otherwise. These cases are observed, whenever possible, for three months in order to exclude syphilis. This period is reckoned as from the last sexual exposure to infection. Frequently these cases have to be admitted to Hospital and given Dmelcos Vaccine intravenously. This vaccine is very useful in healing the sore and reducing inguinal adenitis. It has not been found necessary to inject or incise an inguinal abscess in any case where Dmelcos has been exhibited.

Prevention of Venereal Diseases.

The primary aim of all V.D. Schemes is to prevent the spread of Venereal Disease. The method adopted in this Country is to encourage patients who are infected to attend as early as possible and to treat them, thereby rendering them non-infectious and so safeguarding the health of the community. This means that Venereal Disease has to declare itself, and the diagnosis must be correct.

As the incubation periods of Syphilis and Gonorrhœa may be prolonged, it is easily seen that persons may spread venereal disease before the actual symptoms manifest themselves. In addition, very few patients seek advice during the incubation period, and even if all of them did apply to Clinics during that time it is by no means easy to diagnose these serious diseases at such an early stage.

The method of treating all persons who have contracted Venereal Diseases has borne fruit with regard to Syphilis, although it is a long and tedious one. Yet, it is the safest one, and the best according to the present state of our knowledge. As the incubation period of Syphilis may be anything from ten days to ten weeks, it is advisable and has been practised in this Clinic, to observe all cases where any suspicion of Syphilis has arisen for three months after the date of sexual exposure.

During the past seven years, however, there have been persons who have presented themselves at the Salford Clinic during working hours requesting preventive treatment against Venereal Disease, they having exposed themselves to infection. The practice in this Clinic has been to give them this treatment if they attend within twenty-four or forty-eight hours after sexual exposure. If they attend later than forty-eight hours, they are examined and observed for three months, *i.e.*, until the end of the incubation period of Syphilis.

Preventive Treatment.

The following method has been adopted for persons applying for preventive treatment within twenty-four or forty-eight hours after sexual exposure :—

A clinical examination is made to ensure that the applicant is not already suffering from Venereal Disease. The blood is examined by the Wassermann and Kahn Methods in order to exclude Syphilis in the past. If there are no signs or symptoms of Gonorrhœa and Syphilis, the patient is given 12 grains of Stovarsol daily for three consecutive days—making a total dosage of 36 grains (2.4 grammes). Twelve grains of Stovarsol are taken by the mouth the first thing each morning, about half an hour before food. In addition to this, the patient is ordered Potassium Permanganate (1 in 5,000) urethral irrigation daily, to be followed by a urethral instillation of 2 c.c. of Solution of Nucleinate of Silver 5 per cent. This is given daily for three days. At the end of this time the patient is examined clinically, and if found normal he is advised to return in three months' time. He is then thoroughly re-examined and his blood tests are repeated.

Thus it will be seen that the method of preventative treatment adopted in this Clinic lasts three days. This has fully justified itself, as there has not been a single case during the past seven years in which this method has failed to prevent the acquisition of Syphilis or Gonorrhœa.

In 1936, there were 69 male patients who applied for this form of treatment. In Tables XV, XVI, XVII and XVIII these cases are analysed as to their age, marital state, type of partner and the taking of alcohol prior to sexual exposure.

It is significant to note that there has not been a single female patient applying for preventive treatment.

It will be seen from these tables that the percentage rate for single men is highest, and that 79.63 per cent. of them had some alcohol just before sexual exposure took place.

TABLE XV.

Male Preventive Treatment—1936.

Marital State.

	No.	Per cent.
Married	18	26.03
Single	50	72.50
Widowers	1	1.47
Total	69	100.00

TABLE XVI.

Male Preventive Treatment—1936.

Type of Partner.

	No.	Per cent.
Prostitute	32	47.00
Amateur	30	43.00
Not known	7	10.00
Total	69	100.00

TABLE XVII.

Male Preventive Treatment—1936.

Condition.

	No.	Per cent.
Drunk	10	14.52
Had some Alcohol	45	65.11
Sober	14	20.37
Total	69	100.00

TABLE XVIII.

Male Preventive Treatment—1936.

Age Groups.

	No.	Per cent.
Under 20 years	1	1.26
Between 20 and 30	35	51.26
,, 30 and 40	29	42.00
,, 40 and 50	2	2.74
,, 50 and 55	2	2.74
Total	69	100.00

In-patients.

There are two wards at Hope Hospital, Pendleton, equipped for the treatment of Venereal Diseases. The female ward—C.2.X.—has been in use since June, 1931. It contains six beds, and a treatment room is attached to it.

The male ward—E.2.X.—was opened on 1st April, 1936. It contains eight beds, and there is a treatment room and a small operating room attached to this ward.

Full use has been made of these wards during the year, and they are of great service to patients suffering from Venereal Diseases.

The number of in-patient days was 2,889. The actual number of patients admitted was 87, and the average number of days spent in Hospital was 33. The V.D. Medical Officer visits Hope Hospital twice weekly, and in addition to the work in the V.D. wards a great number of patients in general wards are referred to him every week for examination and advice. He is also frequently called upon to examine and treat patients suffering from skin diseases in general wards.

Nurses and Attendants from Hope Hospital Staff have attended the Municipal Clinic for instruction in the diagnosis and treatment of Venereal Diseases. The co-operation between the Staffs at the Municipal Clinic and Hope Hospital is excellent, and the V.D. Medical Officer is grateful to the Medical Superintendent of Hope Hospital for the interest and assistance he has given during the year.

Venereal Disease Pathology.

The Wassermann and Kahn Tests are carried out by Dr. G. J. Crawford, at the Salford Public Health Laboratory. His reports have been accurate, and in agreement with the clinical findings. He has also been carrying out Complement Fixation Tests and Cultural Tests for Gonorrhœa. These tests have been of great assistance in cases undergoing tests of cure for Gonorrhœa. Dark-ground examinations for treponema pallidum, and smears for gonococcus are carried out in the Municipal Clinic. There were 141 dark ground examinations for treponema pallidum, and 5,465 smears examined for Gonorrhœa during the year 1936.

General.

The facilities for out-patient and in-patient treatment are excellent. The Medical and Nursing Staffs are adequate for the work required at present.

The V.D. Medical Officer and his Staff are interested in Venereal Diseases from the Public Health and Social points of view, as well as from the medical aspects of these diseases. It is realised that Venereal Disease is one of the greatest enemies to family life. It causes unhappiness, disability, economic loss and at times disruption of the family. The preservation of this basic unit of our society is kept in mind by the Medical Staff during their work in the Clinic.

The study and understanding of V.D. patients is equally as important as the diagnosis and treatment of their diseases in the campaign against the V.D. plague. It is the aim not only to cure the patients' infections, but to enlighten, advise and persuade them not to repeat the experiment of acquiring these diseases again. This is done by the constant study and observation of human beings afflicted with these diseases, and evolving the correct methods of dealing with the different types of patients.

The V.D. problem is not only a question of treponema pallidum and gonococcus, but also one of human nature, as these diseases are associated with the sexual instinct and the conduct of human beings. Thus, a would-be successful campaigner against venereal diseases is obliged to be an eager student of human nature, as well as one of venereal disease diagnosis, pathology and therapy.

Post Graduate Instruction.

There were twenty medical practitioners who attended the Municipal Clinic for instruction in the diagnosis and modern treatment of Venereal Diseases. Eleven qualified for the Ministry of Health Certificate.

Original Investigations.

In spite of the enormous amount of research, and the brilliant discoveries made during the past thirty years, there are still many problems awaiting elucidation. We are still in the dark regarding the biology of the treponema pallidum, especially concerning its cultivation and resting form. Arsphenamine and Bismuth preparations render patients non-infectious quickly, but to effect permanently negative blood and biological cure they have to be given frequently, in adequate amounts and over lengthy periods. In other words, we are a long way from Ehrlich's therapia magna sterilisans by one injection. There is no specific drug for Gonorrhœa, and the ways of the gonococcus are mysterious. There is also the problem of Neo-arsphenamine and Bismuth complications, such as dermatitis and jaundice. These complications are still with us, and they hinder our efforts against syphilis.

Realising all these, a certain amount of original work has been carried out during the year 1936. Some of it is in continuation of previous years, and the following is a detail of that carried through :—

(1) Investigation of Collosol Mercury Sulphide (Crookes) as an anti-syphilitic remedy, particularly with regard to its therapeutic value in the treatment of neoarsphenamine jaundice and dermatitis. The results will be published at an early date.

(2) A new trivalent neoarsphenamine compound has appeared on the market under the name of " Mapharside." It is stable, and considered to be superior to the arsenobenzol trivalents at present in use. This investigation is not completed.

(3) Suspensol Iodine (Blythswood), Collosol Argentum, Agesulf and Argent Nucleinate have been carefully tested on the cases of anterior gonorrhœal urethritis, and the results compared with the routine methods in use.

(4) Cases of jaundice and dermatitis have been carefully investigated, particularly from the etiological aspect. This investigation is continued from the previous years.

(5) The role played by alcohol as an etiological factor of Gonorrhœa in the male sex was undertaken in the year 1936, and the results are summarised under the heading of Gonorrhœa in this Report.

In conclusion, I would like to express my thanks to the Medical Officer of Health and to the Salford Health Committee for the way in which my recommendations have been carried out.

I also wish to record my appreciation of the efficient and loyal work rendered by the Assistant Medical Officers, Nurses, Orderlies and Clerical Staff.

I have the honour to be,

Sir,

Your obedient Servant,

R. MARINKOVITCH,

Venereal Diseases Medical Officer to the City of Salford.

APPENDIX I.

RN RELATING TO ALL PERSONS WHO WERE TREATED AT THE TREATMENT CENTRE AT SALFORD DURING THE YEAR ENDED THE 31ST DECEMBER, 1936.

	Syphilis.		Soft Chancre.		Gonorrhœa.		Conditions other than venereal.		Totals.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals.
Number of cases on 1st January under treatment or observation	340	202	13	—	380	183	151	20	884	405	1,289
Number of cases removed from the register during any previous year which returned during the year under report for treatment or observation of the same infection	10	2	—	—	—	—	—	—	10	2	12
Number of cases dealt with for the first time during the year under report (exclusive of cases under Item 4) suffering from—											
Syphilis, primary	80	14	—	—	—	—	—	—	80	14	94
,, secondary	23	21	—	—	—	—	—	—	23	21	44
,, latent in 1st year of infection	19	2	—	—	—	—	—	—	19	2	21
,, all later stages	67	22	—	—	—	—	—	—	67	22	89
,, congenital	12	7	—	—	—	—	—	—	12	7	19
Soft Chancre	—	—	60	—	—	—	—	—	60	—	60
Gonorrhœa, 1st year of infection	—	—	—	—	474	158	—	—	474	158	632
Gonorrhœa, later	—	—	—	—	3	5	—	—	3	5	8
Conditions other than venereal	—	—	—	—	—	—	791	150	791	150	941
Number of cases dealt with for the first time during the year under report known to have received treatment for the same infection, or to have been under observation at other Centres	16	—	4	—	32	1	—	—	52	1	53
TOTALS OF ITEMS 1, 2, 3 AND 4	567	270	77	—	889	347	942	170	2,475	787	3,262
Number of cases discharged after completion of treatment and final tests of cure or after diagnosis as non-venereal	32	28	47	—	234	56	670	126	983	210	1,193
Number of cases which ceased to attend before completion of treatment and were, on first attendance, suffering from :—											
Syphilis, primary	14	1	—	—	—	—	—	—	14	1	15
,, secondary	3	6	—	—	—	—	—	—	3	6	9
,, latent in 1st year of infection	2	—	—	—	—	—	—	—	2	—	2
,, all later stages	31	25	—	—	—	—	—	—	31	25	56
,, congenital	5	16	—	—	—	—	—	—	5	16	21
Soft Chancre	—	—	4	—	—	—	—	—	4	—	4
Gonorrhœa, 1st year of infection	—	—	—	—	49	51	—	—	49	51	100
Gonorrhœa, later	—	—	—	—	—	3	—	—	—	3	3
Number of cases which ceased to attend after completion of treatment but before final tests of cure	23	13	—	—	93	34	—	—	116	47	163
Number of cases transferred to other Centres or to institutions or to care of private practitioners	78	12	10	—	137	26	—	—	225	38	263
Number of cases remaining under treatment or observation on 31st December	379	169	16	—	376	177	272	44	1,043	390	1,433
TOTALS OF ITEMS 5, 6, 7, 8 AND 9 (These totals should agree with those of Items 1, 2, 3 and 4)	567	270	77	—	889	347	942	170	2,475	787	3,262
Number of cases in the following stages of syphilis included in Item 6 which failed to complete one course of treatment :—											
Syphilis, primary	6	—	—	—	—	—	—	—	6	—	6
,, secondary	1	—	—	—	—	—	—	—	1	—	1
,, latent in 1st year of infection	1	—	—	—	—	—	—	—	1	—	1
,, all later stages	9	11	—	—	—	—	—	—	9	11	20
,, congenital	2	4	—	—	—	—	—	—	2	4	6
Number of attendances :—											
(*a*) for individual attention of the medical officers	13,726	5,593	453	—	10,257	3,217	3,686	598	28,122	9,408	37,530
(*b*) for intermediate treatment, *e.g.*, irrigation ,dressing	2,285	721	884	—	38,629	13,443	4,232	73	46,030	14,237	60,267
TOTAL ATTENDANCES	16,011	6,314	1.337	—	48,886	16,660	7,918	671	74,152	23,645	97,797

APPENDIX I.—*Continued.*

RETURN RELATING TO ALL PERSONS WHO WERE TREATED AT THE TREATMENT CENTRE AT SALFORD DURING THE YEAR ENDED THE 31ST DECEMBER, 1936.

	Syphilis.		Soft Chancre.		Gonorrhœa.		Conditions other than venereal.		Totals.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals.
12. In-patients :—											
(*a*) Total number of persons admitted for treatment during the year.....	15	15	1	—	19	29	5	3	40	47	87
(*b*) Aggregate number of "in-patient days" of treatment given.....	641	645	54	—	465	932	108	44	1,268	1,621	2,889

	Under 1 year.		1 and under 5 years.		5 and under 15 years.		15 years and over.		Totals.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
13. Number of cases of congenital syphilis in Item 3 above classified according to age periods.....	3	1	—	—	3	2	6	4	12	7

	Arsenical		Mercury.	Bismuth.
	Approved Arsenobenzene Compounds.	Others		
14.—				
(*a*) Names of Chief preparations used in treatment of Syphilis	Stabilarsan, Neosilversalvarsan. Novarsenobillon.	Tryparsamide	Colloidol Mercury Sulphide.	Chlorostab and Bivatol
(*b*) Total number of injections given (out-patients and in-patients)	6,874	36	1,387	5,090

	Microscopical.		Cultural for Gonorrhœa	Serum		Cerebro-spinal	Others for diagnosis of Venereal Disease
	for Syphilis	for Gonorrhœa		for Syphilis.	for Gonorrhœa		
15. Pathological Work :—							
(*a*) Number of specimens examined at, and by the medical officer of, the Treatment centre	141	5,465	—	—	—	—	—
(*b*) Number of specimens from patients attending at the Treatment Centre sent for examination to an approved laboratory	—	—	86	3,793*	1,403	—	57†

* Wasserman & Kahn

† Meinicke

STATEMENT SHOWING THE SERVICES RENDERED AT THE TREATMENT CENTRE DURING THE YEAR, CLASSIFIED ACCORDING TO T AREAS IN WHICH THE PATIENTS RESIDED.

Name of County or County Borough (or Country in the case of persons residing elsewhere than in England and Wales) to be inserted in these headings.	Salford	Manchester	Lancs.	Cheshire	Bolton	Oldham	Other Areas	Seamen, British	Seamen, Foreign	Tot
A. Number of cases from each area included under the following headings in Item 3										
Syphilis.....	118	61	49	7	1	2	6	13	10	2
Soft Chancre.....	19	16	9	2	—	—	3	5	6	
Gonorrhœa.....	239	172	133	33	6	3	13	19	22	6
Conditions other than venereal.....	388	233	190	36	9	11	20	29	25	9
TOTAL	764	482	381	78	16	16	42	66	63	1,9
B. Total number of attendances of all patients residing in each area.....	40,491	24,716	23,239	5,006	1,172	279	1,509	1,122	263	97,
C. Aggregate number of "In-patient days" of all patients residing in each area.....	1,947	515	334	—	—	—	62	—	31	2,

SECTION IV.

Report Relating to the

Meat and Food Inspection, Milk Supply, and the Diseases of Animals Acts.

Inspection of Meat and other Foods.

The examination of meat and other foods is under the control of Inspectors who are qualified to carry out the duties, and they are responsible for the examination of all meat and foodstuffs, exposed or deposited or in preparation for sale, and it is the duty of the Inspectors to ascertain that the meat and food in the City is neither unsound, unwholesome nor diseased.

The general public can be of great assistance in this direction, if, when making their purchases, they would insist on purchasing only foods they can see for themselves have not been exposed to flies, dust and other contamination.

Objectionable practices occur in many food shops, such as sweeping the floors without first covering all exposed foods and then damping the floor prior to sweeping, not protecting uncovered foods from flies, and exposing foodstuffs outside shops. There is a very unhygienic habit of moistening the finger tips with the tongue in order to more easily separate paper before wrapping food. Another prevalent practice is to blow into paper bags before using them as food containers. If the offenders would think of the danger of infection that may be caused, they would more easily and surely discontinue these bad habits.

The method of wrapping bread at the bakery has not advanced as one would wish. If the public would make a more general request for wrapped bread, the supply would very soon meet the demand.

There are 278 retail butchers' shops in the City and 884 visits of inspection have been made throughout the year. These shops vary in size and modern equipment, according to the locality in which they are situated. In many instances there is room for improvement, especially in regard to the storage of meat during hot weather and efforts will be made to bring these shops up to a required standard which will minimise the risk of the meat becoming contaminated.

Where it has been found that the Merchandise Marks (Imported Goods) No. 7 Order, in relation to the marking of imported meat " Foreign," " Empire " or the " Country of Origin " has not been complied with, the offenders have

been warned and informed that a further contravention would be reported to the Health Committee with a view to a summons being issued.

Food Preparing Premises.

A register of these premises is kept, and there are 23 such places of business in the City where Sausages, Brawn, Blackpuddings, Pies, &c., are made.

The Food preparing Byelaws under which these premises are controlled, require a high standard of cleanliness and sanitation.

One hundred and seventy-one visits of inspection have been made during the year, the meat products are examined when inspections are made, and the general cleanliness of the premises and utensils noted.

Slaughterhouses.

There are six slaughterhouses in the City, five of which are private and one public. The latter is divided into booths, one of these being retained for casual slaughtering of cattle and sheep, two others let to private butchers, and one used for horse slaughtering.

The slaughterhouses are visited at all times when slaughtering takes place and all carcases of animals slaughtered in the City are examined.

The number of visits made by the Inspectors during the year was 2,505 and the number of carcases examined :

Cattle	1,649
Sheep	23,251
Pigs	16,561

The Slaughter of Animals Act, 1933.

Strict attention is paid to the requirements of this Act which is to ensure that humane methods are used when slaughtering animals, and in the treatment of animals awaiting to be slaughtered.

Sixty Slaughtermens' Licences have been granted by the City Council.

Open Air Market.

This market is held on Mondays and Fridays each week, Bank Holidays excepted. Such articles as Fish, Fruit, Vegetables, Poultry, Rabbits, Meat, &c., are regularly exposed for sale.

On the whole the quality and soundness of these articles are good. In a few instances a surrender of fruit has been made by Stallholders to the Inspector, when the latter has considered the said fruit unsound, in another instance a seizure of diseased meat was made and a summons issued against the Stallholder for exposing the said meat for sale.

TABLE OF MONTHLY SEIZURES OF DISEASED AND UNSOUND FOOD DISCOVERED DURING ROUTINE INSPECTION, AND OF UNSOUND FOOD SURRENDERED BY THE OWNERS THEREOF DURING 1936.

Month.	No. of seizures.	Beef lbs.	Mutton lbs.	Pork lbs.	Veal lbs.	Miscel. lbs.	Total.
January	167	126	281	5,039	—	—	5,446
February	110	1,289	208	2,733	—	—	4,230
March	165	743	486	3,746	—	—	4,975
April	106	152	—	2,678	—	—	2,830
May	89	988	—	1,924	—	—	2,912
June	133	1,049	73	6,408	—	11,452	18,982
July	78	130	68	3,952	—	6	4,156
August	173	892	110	5,131	—	—	6,133
September	285	1,350	113	9,424	—	4	10,891
October	204	308	—	7,417	—	18	7,743
November	975	1,444	1,702	27,620	—	6	30,772
December	333	681	889	10,400	—	23	11,993
Totals	2,821	9,152	3,930	86,472	—	11,509	111,063

The miscellaneous articles condemned were :—

Canned Fruit	11,448 lbs.
Dried Fruit	15 lbs.
Apples	14 lbs.
Onions	8 lbs.
Condensed Milk	6 lbs.
Toffee	6 lbs.
Rabbits	4 lbs.
Chickens	4 lbs.
Sausages	4 lbs.

TABLE SHOWING THE AMOUNT OF FOOD CONDEMNED FROM VARIOUS CAUSES DURING 1936.

No. of Seizures.	Cause of Seizures.	Weight in lbs.
1,318	Tuberculosis	54,164
614	Congestion	11,747
176	Cirrhosis	894
168	Hydatid Cysts	1,424
148	Pleurisy and Pericarditis	1,688
107	Pneumonia	2,564
59	Moribund	6.766
52	Decomposition	1,235
46	Swine Fever	9,292
30	Abscess	1,119
21	Distomatosis	154
17	Emaciation	1,434
13	Necrosis	52
12	Jaundice	2,424
11	Injury	231
7	Swine Erysipelas	1,414
6	Unsound	11,483
5	Nephritis	1,038
4	Peritonitis	482
3	Septicæmia	650
2	Oedema	404
1	Rickets	202
1	Pyæmia	202
		111,063

Of the total weight of meat seized, 24 tons 3 cwts. 2 qrs. and 12 lbs. or 48.77 per cent. was seized on account of tuberculosis.

TABLE SHOWING NUMBER OF SAMPLES OF MILK OBTAINED FROM VARIOUS COUNTIES, AND THE NUMBER OF PERCENTAGE FOUND TO BE TUBERCULOUS, FOR THE YEARS 1927-1936.

	Year 1927.			Year 1928.			Year 1929.			Year 1930.			Year 1931.			Year 1932.			Year 1933.			Year 1934.			Year 1935.			Year 1936.		
	Total number of samples examined.	Number positive.	Percentage positive.	Total number of samples examined.	Number positive.	Percentage positive.	Total number of samples examined.	Number positive.	Percentage positive.	Total number of samples examined.	Number positive.	Percentage positive.	Total number of samples examined.	Number positive.	Percentage positive.	Total number of samples examined.	Number positive.	Percentage positive.	Total number of samples examined.	Number positive.	Percentage positive.	Total number of samples examined.	Number positive.	Percentage positive.	Total number of samples examined.	Number positive.	Percentage positive.	Total number of samples examined.	Number positive.	Percentage positive.
Cheshire	178	20	11.2	220	23	10.4	240	26	10.8	253	21	8.3	225	20	8.8	195	22	11.2	185	22	11.8	193	23	11.9	216	30	13.8	267	29	10.9
Lancashire.....	124	6	4.8	135	7	5.1	148	14	9.4	156	7	4.4	151	7	4.6	138	6	4.3	121	12	9.9	176	8	4.5	190	14	7.3	171	15	8.8
Yorkshire	41	4	9.7	58	4	6.9	48	1	2.0	41	1	2.4	40	2	5.0	31	...	...	42	2	4.7	63	1	1.6	38	3	7.8	27	...	...
Staffordshire	8	1	12.5	15	2	13.6	8	2	25.0	7	...	...	5	1	20.0	10	2	20.0	11	2	18.1	15	4	26.6	14	1	7.1	19	...	...
Derbyshire	9	...	...	15	1	6.3	9	1	11.1	1	...	...	1	...	...	...	...	...	1	...	...	2	1	50.0	2	...	...	3	...	...
Shropshire	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Cumberland	...	...	...	...	...	...	...	...	...	7	1	14.2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mixed	...	...	...	12	2	16.6	9	1	11.1	12	1	8.5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pasteurised.....	11	...	...	9	...	...	1	0	0	53	...	...	15	...	...	6	...	...	17	...	...	5	...	...	9	...	...	9	...	...
Special.....	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	6	...	...	*9	...	...	*10	1	10.0	3	...	...	...	...	...
Total for year.....	371	31	8.3	466	39	8.3	463	45	9.71	530	31	5.8	442	30	6.78	386	30	7.7	386	38	9.8	465	38	8.2	472	48	10.1	496	44	8.9

*" Certified," Grade " A " (Tuberculin Tested) and Grade " A " Milks.

Offensive Trades.

There are nine Offensive Trades carried on in the City. No nuisance has occurred throughout the year.

Nature of Trades.	
Tripe Dressing	4
Soap Works	2
Tanneries	1
Skin Dressers	1
Gut Scrapers	1
	9

The Milk Supply.

Practically all the milk sold within the City is produced at farms outside the City area.

The number of farms supplying mild direct to Salford is approximately 420, and these are situated in Lancashire, Cheshire, Derbyshire, Yorkshire, Staffordshire and Shropshire. There is also a large quantity of Pasteurised and raw milk retailed in the City by dairymen with registered premises in adjoining towns.

The supervision of the milk supply consists in the regular sampling of the milk for B. Tuberculosis, Bacterial content and efficient Pasteurisation. The dairies and milk shops are also periodically inspected.

There are 772 registered retail purveyors of milk in the City; of these 626 retail bottled milk only.

The type of shop from which loose milk is sold continues to improve and it is the aim of the Department that in the near future this type of shop will be strictly confined to milk and dairy produce only.

The registered retail purveyors of milk are classified as follows :—

Milk depôts and small dairies	56
Retail milk shops selling other articles in conjunction with milk	61
Shops selling bottled milk in conjunction with other articles	626
Retail Milk Dealers selling milk in the City who have registered dairies outside the City	29

Seven hundred and eighty visits to dairies and milk shops have been made during the year.

Special attention is paid to the methods of cleansing and sterilising utensils, the storage of milk, the sterilising of milk bottles and the general structure and sanitary condition of the premises.

Seventy-eight milk bottles from dairies have been tested for efficiency of sterilisation during the year ; of these, 24, or 30.77 per cent., were found to be improperly sterilised, in each instance the dairyman concerned was cautioned and a further test made at a later date. The cautions resulted in immediate improvement.

The continued increase of the sale of milk in bottles calls for strict supervision of this section of the dairy in order to ensure the efficient sterilisation of all bottles before being used.

On the whole, improvement has been maintained in the methods of production, transport, storage and distribution of milk, and especially in the sterilising of cans and utensils, but a continuance of the frequent testing and sampling is at all times necessary.

Milk (Special Designations) Order, 1923.

The following licences to use Special Designations under the above Order during 1936 were granted :—

12 Dealers' Licences to sell milk as " Certified."
4 Supplementary Licences to sell milk as " Certified."
9 Dealers' Licences to sell milk as " Grade A."
1 Producer's Licence to produce milk as " Grade A."
2 Supplementary Licences to sell milk as " Grade A."
3 Dealers' Licences to sell milk as " Grade A." " Tuberculin Tested."
2 Supplementary Licences to sell milk as " Grade A." " Tuberculin Tested."
31 Dealers' Licences to sell milk as " Pasteurised."
6 Supplementary Licences to sell milk as " Pasteurised."
2 Licences in respect of Pasteurising Establishments.
2 Licences in respect of " Bottling Establishments," with regard to " Tuberculin Tested " and " Grade A " milks.

Milk (Special Designations) Order, 1936.

This Order replaces the Milk (Special Designations) Order of 1923, and came into operation on the 1st June, 1936.

The Order lessens the number of Grades of milk to three, viz. :—

Tuberculin Tested,
Accredited, and
Pasteurised.

These three grades of milk are indicated in the Order as follows :—

"TUBERCULIN TESTED."

The conditions for this grade are substantially the same as those at present prescribed for Grade A ("Tuberculin Tested") Milk. It is milk from cows which has passed a veterinary examination and a tuberculin test, and it may be bottled on the farm or elsewhere.

If raw, the milk must, until the 31st December, 1936, be so produced that a sample taken at any time before delivery to the consumer shall not contain more than 200,000 bacteria per millilitre; after that date it must satisfy a prescribed methylene blue reduction test for cleanliness. At all dates it must contain no coliform bacillus in one-hundredth of a millilitre. If pasteurised, it must be described as "Tuberculin Tested Milk (Pasteurised)" and must not contain more than 30,000 bacteria per millilitre. If it is bottled on the farm the word "(Certified)" may be added to its description.

"ACCREDITED."

The conditions for this grade are similar to those prescribed in the Order of 1923 for Grade A milk. It is raw milk from cows which has passed a veterinary examination; it may be bottled on the farm or elsewhere. It must satisfy the same bacteriological tests as are prescribed for raw Tuberculin Tested Milk.

"PASTEURISED."

This designation is applicable both where "Accredited" milk and where ungraded milk is pasteurised in accordance with the requirements of the Order. The conditions are substantially the same as in the Order of 1923, except that further conditions are imposed with regard to thermometers and temperature records.

A summons was issued against a Dairyman for retailing milk in the City as "Accredited" without having a licence to sell "Accredited" milk.

The Dairyman whose registered dairy was outside our district was fined 10s. at the City Police Court.

The public demand for milk sold under (Special Designations) increased somewhat during 1936; two firms applied for and were granted Bottling Licences

to bottle and sell " Tuberculin Tested " and Accredited " Milk under the 1936 Order, and in each instance increased sales are reported.

School Milk.

As last year, milk has been supplied daily, excepting the days on which there is no school, to school children under the Milk Marketing Board's scheme.

One of the conditions is, that the milk supplied should be approved by the Medical Officer of Health. Pasteurised milk is supplied and this is regularly examined for Bacterial content and efficient Pasteurisation. The milk bottles are periodically tested for efficient sterilisation.

Milk Supplied to Hospitals and Open Air Schools.

The Corporation milk contracts for this milk are for " Tuberculin Tested," " Accredited " and " Pasteurised " milk. Approximately 280 gallons of " Tuberculin Tested," 26 gallons of " Accredited " and 100 gallons of " Pasteurised " milk are delivered daily to the Corporation Hospitals and Open Air Schools.

TABLE SHOWING BACTERIOLOGICAL EXAMINATION OF SAMPLES OBTAINED FROM CONTRACT SUPPLY.

	No. of samples examined.	Bacteria per c.c.								Presumptive Coli. Test.			
		0—1,000	1,000—10,000	10,000—30,000	30,000—50,000	50,000—100,000	100,000—150,000	150,000—200,000	Over 200,000	Coli. absent in $\frac{1}{10}$ c.c.	Coli. present in $\frac{1}{10}$ c.c.	Coli. present in $\frac{1}{100}$ c.c.	Percentage with Coli. in $\frac{1}{100}$ c.c.
Tuberculin Tested.....	36	6	14	6	—	2	1	—	7	28	4	4	11.11%
Accredited	8	1	3	2	1	1	—	—	—	5	3	—	Nil.
Pasteurised.....	22	1	7	7	3	3	—	—	1	7	9	6	27.27%

Tuberculous Milk.

Four hundred and ninety-six samples of milk, nine of which were Pasteurised Milk, were obtained and submitted for bacteriological examination for B. Tuberculosis. These samples are obtained on the arrival of the milk at the Dairy.

Of the 496 samples of milk submitted for bacteriological examination, 44, or 8.9 per cent., were found to be positive. This is a slightly reduced percentage than last year, but there is room for improvement on these figures, and the

early detection of cows giving Tuberculous Milk will be carried on with added vigour. It should be noted that the greater part of the farm milk after reaching the City is Pasteurised and is not delivered to the consumer in its raw state.

When a sample of milk is found to contain B. Tuberculosis, the Medical Officer of the district in which the milk is produced is immediately notified of the address of the farm ; the herd is then inspected under Section 4 of the Milk and Dairies (Consolidation) Act, 1915.

The cows which are found to be giving Tuberculous Milk are slaughtered under the Tuberculosis Order, by the respective Local Authorities.

Phosphatase Test.

The above test which was commenced last year in order to ascertain whether milk was being properly pasteurised or not has been continued during 1936.

Samples of " Pasteurised " milk have been examined and the following table shows the results of the tests :—

Number of Samples submitted.	Correctly Pasteurised.	Not correctly Pasteurised.	Grossly underheated or raw.
110	35	36	39

As a result of the above tests, inquiries were made into the cause of the unsatisfactory samples and it was ascertained that certain defects existed in pasteurising plants in the City ; in one instance the defects have been remedied and in another a new pasteurising plant installed.

Acts and Orders Relating to Diseases of Animals.

The Health Committee are the Executive Committee of the Local Authority for the purposes of the Diseases of Animals Acts, and General Orders made under the Acts.

A very large amount of time is taken up, and work carried out, which cannot be expressed in tables and figures.

The following is a list of Acts and Orders dealt with during the year :—

Swine Fever Orders.
Transit of Animals Order, 1927.
Transit of Animals (Amendment) Order, 1931.
Animals (landing from Ireland, Channel Isles and Isle of Man) Order, 1933.
Importation of Canadian Cattle Order, 1933.
Movement of Animals (Records) Order, 1925.

Importation of Dogs and Cats Order, 1928.
Markets, Sales and Lairs Order and Amendment Orders.
Anthrax Order, 1928.
Foot and Mouth Disease Order, 1928.
Foot and Mouth Disease Order, Boiling of Animal Foodstuffs Order.
Foot and Mouth Disease Order, Packing Materials Order.

One outbreak of Swine Fever occurred during the year, which was notified to and confirmed by the Ministry of Agriculture and Fisheries. The case was observed during routine inspection at one of the slaughterhouses and later involved the slaughtering of 576 pigs. It was found that 46 carcases were affected with Swine Fever. These were condemned and destroyed at the Corporation Destructor.

Six cases of sudden death in cattle found dead in cattle wagons on arrival in Salford, were investigated for Anthrax, specimens were submitted to the Bacteriologist for examination, and in each instance the specimen proved negative.

Thirty-two visits to ships were made to ascertain that the provisions with regard to the ("Importation of Dogs and Cats") Order were being complied with.

Animals (Landing from Ireland, Channel Islands and Isle of Man) Order, 1933, and Importation of Canadian Cattle Order, 1933.

There are eight cattle lairs in the City into which cattle under the above Orders are taken. During the year, licences were received from Inspectors of the Ministry of Agriculture and Fisheries authorising the movement of 12,525 cattle and 49,963 sheep to the lairs from the various Ports. After six days' detention, the cattle do not require a licence to accompany their movement. Prior to this detention, they can only be moved on licence for slaughter.

The cattle lairs are visited and inspected to check the period of detention of animals and to ensure that the lairs are at all times kept in such a condition as not to become a nuisance detrimental to the public health.

There are three cattle receiving and forwarding stations in the City, which are regularly inspected. All the railway wagons, cattle pens and platforms are thoroughly cleansed and disinfected after use.

Animals Received into the City by Rail during 1936.

Cattle.	Sheep.	Pigs.	Calves.	Horses.
58,296	265,683	1,160	2,707	27

Animals Forwarded Out of the City by Rail during 1936.

Cattle.	Sheep.	Pigs.	Calves.	Horses.
403	418	10	—	4

SECTION V.

Pathological Laboratory Report

The appended table shows the work carried out at the City Laboratory and at Hope Hospital Laboratory during 1936.

The total number of specimens examined was 39,460, an increase of 3,000 on that of last year. This is mainly due to extra investigations carried out at Hope Hospital as the scope of the laboratory work there is still expanding.

There have been no essential alterations in the routine work at Regent Road except that cultural methods for the diagnosis of gonorrhœa have been introduced as a routine procedure. This means that all doubtful cases of gonorrhœa as well as patients on test for cure are submitted to culture tests, as well as smear and complement fixation tests.

Arrangements were also made during 1936 to carry out all the Public Health Laboratory investigations for the Urban District Council of Prestwich.

A preliminary note was published in last year's report on the value of the serum treated swab in the diagnosis of diphtheria. The results of the complete investigation were published by Dr. Cargill and Dr. Crawford in the *Lancet*, 27th March, 1937, and mainly showed that the serum treated swab had little advantage over the simple direct smear in the bacteriological diagnosis of clinical diphtheria.

The serum treatment of lobar pneumonia is still being carried out at Hope Hospital. The results of Dr. Stent's work on pneumonia were published in conjunction with Dr. G. J. Langley and Dr. W. Mackay in the *Quarterly Journal of Medicine*, April, 1936, and also a further paper in the *Lancet*, April 3rd, 1937. Dr. Langley and Dr. Stent also read a conjoint paper on the serum treatment of pneumonia at the International Congress of Bacteriology, London, July, 1936.

The following is an account by Dr. Stent of the treatment of carbuncles and boils with staphylococcus toxoid.

The treatment of carbuncles and boils with injections of staphylococcus toxoid has been tried in this country during the last two years with favourable clinical results. As cases of this type occur fairly frequently in Hope Hospital, treatment by this method was commenced in 1935. During 1936, twenty cases with carbuncles were admitted to the hospital, and all were treated with staphylococcus toxoid. The majority of these cases had been ill for ten to fourteen days, and the lesions were large, with much swelling around, and only slight discharge. The initial dose of toxoid was 0.05 c. cm., followed by 0.1, 0.2, 0.3 and 0.4 c. cm. at intervals of four to seven days depending on the extent of the local reaction. The improvement in the condition was evident following the second dose, when localisation and profuse discharge of pus commenced. On an average healing was complete in these twenty cases in twenty-five days, and no severe local or general reactions were seen.

Similar injections were given to ten cases with recurrent boils, but the permanent results were not so good as the cases of carbuncle. Although three patients had relapses within 4 to 6 weeks, the lesions cleared up within 4 to 5 days without any surgical interference. These cases were then treated with vaccoid (toxoid and stock vaccine), but the results were no better than when toxoid was used. Three cases of styes did remarkably well, and there has been no recurrence for 12 months. These results compare very favourably with those of Murray and Dolman published in the *Lancet,* 1935.

Particulars of Investigations Carried Out in the Pathological Laboratory During the Year 1936.

Nature of Investigations.	Ladywell Sanatorium.	Hope Hospital.	Veterinary Department.	Tuberculosis Department.	Venereal Diseases Department.	School Medical Department.	Maternity and Child Welfare Department.	General Practitioners.	Salford Royal Hospital.	General.	Total.
Swabs for Diphtheria	7,100	2,150	—	—	—	2,350	10	2,212	—	—	13,822
Virulence Tests of Organisms	35	49	—	—	—	12	—	—	—	2	98
Vaccines	8	6	—	—	—	—	—	1	—	—	15
Sputa for T.B.	499	1,223	—	859	—	—	—	473	—	—	3,054
Milk Inoculations	—	—	498	—	—	—	—	—	—	63	561
,, Counts	—	—	156	—	—	—	—	—	—	169	325
,, Microscopic for T.B.	—	—	15	—	—	—	—	—	—	—	15
Blood Anthrax	—	—	6	—	—	—	—	—	—	—	6
Widal	5	36	—	—	—	—	—	4	—	—	45
Swimming Bath Water	—	—	—	—	—	—	—	—	—	184	184
Bact. and Cyt. Examination Urine	21	1,197	—	1	—	—	6	3	—	—	1,228
Fæces	11	103	—	—	—	—	—	2	—	—	116
Hair for Ringworm	—	—	—	—	—	8	—	—	—	—	8
Wassermann	—	722	—	—	3,793	—	—	196	514	—	5,225
Kahn	—	722	—	—	3,793	—	—	196	514	—	5,225
Meinicke	—	46	—	—	57	—	—	6	23	—	132
Blood Cultures	8	277	—	—	—	—	—	—	—	—	285
Cultures for Gonococci	—	—	—	—	86	—	—	—	—	—	86
Smears for Gonococci	—	221	—	—	—	—	4	16	—	—	241
Gonorrhœal Complement Fixation Test		42	—	—	1,403	—	—	1	4	—	1,450
Diagnosis Inoculations	3	51	—	9	—	—	—	1	5	—	69
Bottles for Sterility	—	—	13	—	—	—	—	—	—	—	13
Hæmolytic Streptococci	—	315	—	—	—	—	6	—	—	—	321
Food Poisoning	—	—	—	—	—	—	—	—	—	1	1
Disinfectants	—	—	—	—	—	—	—	—	—	20	20
Pus, Exudates, etc.	22	316	—	—	—	—	—	—	—	2	340
Toxoid Treatment (No. of Cases)	—	38	—	—	—	—	—	—	—		38
Platelet Count	8	7	—	—	—	—	—	—	—	—	15
Examination of Well Water	—	—	—	—	—	—	—	—	—	5	5
Cerebro-spinal Fluid	86	220	—	—	—	—	—	—	—	—	306
Smears for Trichomonas Vaginitis	—	23	—	—	—	—	—	—	—	—	23
Analysis of Urinary Calculus	—	1	—	—	—	—	—	—	—	—	1
Blood Cholesterol	—	16	—	—	—	—	—	—	—	—	16
Blood Sedimentation Rate	—	326	—	—	—	—	—	—	—	—	326
Blood Grouping	—	34	—	—	—	—	—	—	—	—	34

PARTICULARS OF INVESTIGATIONS CARRIED OUT IN THE PATHOLOGICAL LABORATORY DURING THE YEAR 1936—*Continued*.

Nature of Investigations.	Lady-well Sanatorium.	Hope Hospital.	Veterinary Department.	Tuberculosis Department.	Venereal Diseases Department.	School Medical Department.	Maternity and Child Welfare Department.	General Practitioners.	Salford Royal Hospital.	General.	Total.
Hæmoglobin	—	27	—	—	—	—	—	—	—	—	27
Anti-Hæmolysin	—	20	—	—	—	—	—	—	—	—	20
Blood Films	—	105	—	—	—	—	—	2	—	—	107
Blood Counts	5	356	—	—	—	—	—	—	—	—	361
Blood Urea Estimation	—	174	—	—	—	—	—	—	—	—	174
Blood Sugar	1	878	—	—	—	—	—	—	—	—	879
Examination for Occult Blood	—	220	—	—	—	—	—	—	—	—	220
Blood Calcium	—	2	—	—	—	—	—	—	—	—	2
Fragility Test	—	1	—	—	—	—	—	—	—	—	1
Ascorbic Acid Estimations	—	1	—	—	—	—	—	—	—	—	1
Fractional Test Meal	—	338	—	—	—	—	—	—	—	—	338
Urea Clearance Tests	—	344	—	—	—	—	—	—	—	—	344
Pleural Fluid Complete Examination	—	100	—	—	—	—	—	—	—	—	100
Van den Bergh Reaction	—	17	—	—	—	—	—	—	—	—	17
Fæces for T.B.	1	1	—	—	—	—	—	—	—	—	2
Reticulocyte Count	—	293	—	—	—	—	—	—	—	—	293
Sputa, Inoculations for Typing	—	187	—	—	—	—	—	—	—	—	187
Immunity Pneumonia	—	593	—	—	—	—	—	—	—	—	593
Sputum Concentration	—	1	—	—	—	—	—	—	—	—	1
Coagulation Time	—	11	—	—	—	—	—	—	—	—	11
Diastase Estimation	—	1	—	—	—	—	—	—	—	—	1
Histological Sections	—	800	—	—	—	—	—	—	—	—	800
Blood Phosphatase Estimations	—	3	—	—	—	—	—	—	—	—	3
Post-Mortem Examinations	—	143	—	—	—	—	—	—	—	—	143
Direct Typing of Sputa	—	176	—	—	—	—	—	—	—	—	176
Colloidal Gold Tests	—	1	—	—	—	—	—	—	—	—	1
Anaerobic Cultures	1	2	—	—	—	—	—	—	—	—	3
Friedman Tests	—	11	—	—	—	—	—	—	—	—	11
Urine, Chemical Examination	—	864	—	—	—	—	—	—	—	—	864
Milk Phosphatase Estimation	—	—	124	—	—	—	—	—	—	—	124
Preparation of Museum Specimens	—	6	—	—	—	—	—	—	—	—	6
Film of Malaria Parasite	1	—	—	—	—	—	—	—	—	—	1
	7,815	13,817	812	869	9,132	2,370	26	3,113	1,060	446	39,460

SECTION VI.

Report relating to the City Analyst's Department.

The following Table (Table 1) contains particulars of 1,329 samples examined under the Food and Drugs (Adulteration) Act, 1928, by the Public Analyst during 1936.

TABLE 1.

Samples.	Number Examined.	Number Adulterated.		Per cent. Adulteration.
		Preservatives Only.	Other Ways.	
Milk	1,006	—	30	3.0
Skim Milk	11	—	—	—
Reconstituted Milk	1	—	—	—
Condensed Milk	15	—	—	—
Cream	8	—	—	—
Cheese	10	—	—	—
Butter	11	—	1	9.1
Margarine	9	—	3	33.3
Jam	18	2	—	11.1
Marmalade	2	—	—	—
Golden Syrup	4	—	—	—
Black Treacle	4	—	—	—
Lemon Cheese	4	—	—	—
Sugar	4	—	—	—
Barley Sugar	1	—	—	—
Sweets	2	—	1	50.0
Chocolate	3	—	—	—
Chocolate Wafers	1	—	—	—
Cocoa	7	—	—	—
Coffee	1	—	—	—
Coffee and Chicory	1	—	—	—
Tea	5	—	—	—
Flour	7	—	—	—
Diabetic Flour	1	—	—	—
Diabetic Biscuits	1	—	—	—
Cornflour	1	—	—	—
Custard Powder	1	—	—	—
Arrowroot	2	—	—	—
Semolina	1	—	—	—
Egg Vermicelli	1	—	—	—
Baking Powder	5	—	1	20.0
Cream of Tartar	2	—	—	—
Barley	4	—	—	—
Rice	4	—	—	—
Ground Rice	5	—	—	—
Sausage	13	6	—	46.1
Minced Meat	4	—	—	—
Meat Extract	4	—	—	—
Shredded Beef Suet with Flour	12	—	2	16.7
Tinned Sardines	3	—	1	33.3
Tinned Sild	6	—	1	16.7
Tinned Tomatoes	2	—	—	—
Fruit Salad in Jelly	2	—	—	—
Jelly	4	—	—	—
Prunes	3	—	1	33.3
Apricots	2	—	—	—

TABLE 1.—*Continued.*

Samples.	Number Examined.	Number Adulterated.		Per cent. Adulteration.
		Preservatives Only.	Other Ways.	
Currants	4	—	—	—
Raisins	1	—	—	—
Sultanas	3	—	—	—
Glacé Cherries	3	—	—	—
Ground Almonds	4	—	—	—
Ground Almond Substitute	1	—	—	—
Malt Vinegar	5	—	—	—
Pepper	6	—	—	—
Mint	2	—	—	—
Sage	2	—	—	—
Marjoram	1	—	—	—
Mustard Compound	1	—	—	—
Olive Oil	9	—	—	—
Castor Oil	3	—	1	33.3
Camphorated Oil	2	—	1	50.0
Camphor and Mustard Oil	1	—	—	—
Liquid Paraffin	2	—	—	—
Epsom Salts	4	—	—	—
Glauber Salts	1	—	—	—
Seidlitz Powder	5	—	2	40.0
Gregory Powder	1	—	—	—
Compound Liquorice Powder	2	—	—	—
Bicarbonate of Soda	3	—	—	—
Paregoric	1	—	—	—
Borax	4	—	—	—
Boracic Ointment	6	—	—	—
Zinc Ointment	5	—	1	20.0
Sulphur Ointment	5	—	—	—
Iodine Ointment, Non-staining	1	—	1	100.0
Iodine Lotion	1	—	1	100.0
Iodine Paint	2	—	2	100.0
Iodine Paint, Stainless	1	—	—	—
Iodine Paint, Methylated	1	—	—	—
White Iodised Cream	1	—	—	—
Lysol Soap	4	—	2	50.0
Acetic Acid	1	—	1	100.0
Malt Extract and Cod Liver Oil	2	—	—	—
Whiskey	10	—	—	—
	1,329	8	53	4.6

TABLE 2.

PERCENTAGE ADULTERATION—SALFORD.

Year.	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
Percentage of Adulteration....	4.3	4.7	3.0	3.2	3.3	2.9	4.0	3.3	7.0	4.6
Total Samples.....	1452	1484	1491	1556	1445	1286	1337	1374	1275	1329
Formal Samples..	744	733	727	598	574	462	521	586	574	524
Informal ,, ..	738	751	764	958	871	824	816	788	701	805
No. of Samples per 100,000 of the population.	593	593	596	622	642	576	607	643	596	633

TABLE 3.

ADULTERATION OF MILK—SALFORD.

Year.	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
Number of Samples.	921	994	1028	1103	1100	1106	1003	885	1006	1027	1020	1006
Percentage of Adulteration	4.7	2.5	2.1	3.9	2.5	3.3	2.1	1.7	4.2	1.2	4.6	3.0

TABLE 4.

MILK ADULTERATION—ENGLAND AND WALES.

Year.	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
Percentage of Adulteration	8.3	7.4	6.9	8.2	7.8	6.6	6.4	7.3	7.7	7.2	7.4	Not available

TABLE 5.

AVERAGE COMPOSITION OF ALL MILK.

Month.	Number of Samples.	Total Solids per cent.		Fat per cent.		Solids-not-fat per cent.	
January	112	12.41	12.41	3.55	3.56	8.86	8.85
February	85		12.41		3.55		8.86
March	78		12.41		3.54		8.87
April	78	12.50	12.47	3.59	3.56	8.91	8.91
May	96		12.48		3.56		8.92
June	95		12.55		3.64		8.91
July	79	12.52	12.52	3.69	3.69	8.83	8.83
August	74		12.49		3.66		8.83
September	52		12.58		3.74		8.84
October	108	12.76	12.80	3.81	3.82	8.95	8.98
November	71		12.75		3.82		8.93
December	78		12.70		3.77		8.93
	1,006	12.55		3.66		8.89	

TABLE 6.

AVERAGE COMPOSITION OF FARMERS' MILK.

Month.	Number of Samples.	Total Solids per cent.		Fat per cent.		Solids-not-fat per cent.	
January	47	12.53	12.56	3.62	3.66	8.91	8.90
February	15		12.39		3.46		8.93
March	32		12.57		3.63		8.94
April	3	12.46	13.40	3.52	4.20	8.94	9.20
May	27		12.37		3.46		8.91
June	3		12.35		3.40		8.95
July	5	12.60	12.31	3.77	3.63	8.83	8.68
August	23		12.53		3.69		8.84
September	21		12.75		3.89		8.86
October	66	12.84	12.86	3.85	3.86	8.99	9.00
November	19		12.80		3.83		8.97
December	45		12.84		3.85		8.99
	306	12.67		3.73		8.94	

TABLE 7.

AVERAGE COMPOSITION OF MILK OTHER THAN FARMERS' MILK.

Month.	Number of Samples.	Total Solids per cent.	Fat per cent.	Solids-not-fat per cent.
January	65	12.30	3.48	8.82
February	70	12.34 — 12.41	3.51 — 3.56	8.83 — 8.85
March	46	12.30	3.48	8.82
April	75	12.44	3.54	8.90
May	69	12.51 — 12.52	3.60 — 3.59	8.91 — 8.93
June	92	12.56	3.65	8.91
July	74	12.53	3.70	8.83
August	51	12.50 — 12.47	3.66 — 3.64	8.84 — 8.83
September	31	12.47	3.63	8.84
October	42	12.73	3.77	8.96
November	52	12.67 — 12.73	3.76 — 3.81	8.91 — 8.92
December	33	12.52	3.66	8.86
	700	12.49	3.62	8.87

TABLE 8.

AVERAGE COMPOSITION OF ALL MILK—SALFORD.

Year.	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
	%	%	%	%	%	%	%	%	%	%	%	%
Fat	3.58	3.62	3.80	3.70	3.64	3.57	3.59	3.53	3.51	3.55	3.65	3.66
Solids-not-fat	8.87	8.80	8.81	8.57	8.83	8.92	8.92	8.91	8.79	8.83	8.85	8.89
Total Solids	12.45	12.42	12.61	12.27	12.47	12.49	12.51	12.44	12.30	12.38	12.50	12.55

In Tables 9 and 12 will be found details of 61 samples reported upon as either adulterated or of suspicious quality. This corresponds to a total of 4.6 per cent. of adulteration for the year in Salford, against the unusually high figure of 7.0 per cent. in 1935. Following the usual practice of the department, the majority of offences were dealt with either by interviewing the manufacturer or by letter of caution. In only one case were legal proceedings instituted. In three other cases, the shopkeepers' stock was surrendered to the department for destruction.

TABLE 9.

MILK ADULTERATION.

No.	Nature of Adulteration.	Action Taken.	Remarks.
A 218	Deficient 3.3% fat	Informal. Formal samples taken.	Further samples genuine.
A 226	Deficient 18.3% fat	Caution	—
A 251	Deficient 30% fat and 24.7% solids-not-fat.	Caution	"Reconstituted" Milk.
A 311	Deficient 5% fat	Farm visited	Insufficient mixing. Appeal to cow samples of good quality.
A 312	Deficient 13.3% fat		
A 431	2% extraneous water	See also A 456	—
A 452	2% extraneous water	Farm visited	Caution.
A 453	2% extraneous water		
A 456	Deficient 16.7% fat	Informal	Further samples genuine.
A 515	Deficient 3.3% fat	Informal	Further samples genuine.
A 613	Deficient 6.6% fat	Letter of caution.	Bottled milk.
A 646	Deficient 10% fat	Farm visited, appeal to cow samples taken.	Naturally low quality.
A 667	Deficient 12.7% fat		
A 668	Deficient 3.3% fat		
A 670	Deficient 8.3% fat		
A 734	Deficient 1.7% fat	Farmer interviewed.	Average fat for whole of consignments was 3.6% to 3.8%.
A 737	Deficient 5% fat		
A 739	Deficient 6.6% fat		
A 785	Deficient 13.3% fat		
A 808	1.1% extraneous water	Further samples	Further samples genuine.
A 873	Deficient 3.3% fat	Caution	Bottled milk.
A 982	Deficient 1.7% fat	Caution	Bottled milk.
A 1030	Deficient 10% fat	Further samples genuine.	Bottled milk.
A 1274	Deficient 7.67% fat	Strong letter of caution. Further samples genuine.	Average of whole consignments was 3.75% fat. Insufficient mixing.
A 1278	Deficient 14.33% fat		
A 1281	Deficient 11% fat		
A 1282	Deficient 5.67% fat		
A 1289	Deficient 6.67% fat		
A 1290	Deficient 1.67% fat		
A 1293	Deficient 13.33% fat		

Milk.

1,006 samples of milk were examined during the year, 306 being samples of farmers' milk taken under section 16 of the Food and Drugs Act in course of delivery, in Salford, to wholesalers or retailers. As will be noticed from Tables 6 and 7, the butter fat content of the farmers' milk for the whole year was 0.11 per cent. higher than that for milk from other sources. Similar results have been noted over the last eight years and were discussed at some length in last year's report.

Of the total milk samples taken during the year, 30 were adulterated or below the presumptive limits of 3.0 per cent. fat and 8.5 per cent. solids-not-fat, fixed by the Sale of Milk Regulations, 1901. This figure represents a percentage adulteration of 3.0, which is considerably lower than that of 4.6 in 1935. As will be seen from Table 3, Salford is fortunate in that over a period of twelve years the milk adulteration, represented as a percentage of the number of samples taken, is only approximately half that shown for the whole of England and Wales.

In the following table will be found the various types of adulteration and the number of samples under each heading :—

		%
Milks deficient in fat only	25	2.5
Milks containing added water only	4	0.4
Milks deficient in fat and containing added water	1	0.1
	30	3.0
Milks containing more than 3 per cent. added water	1	0.1
Milks more than 10 per cent. deficient in fat	11	1.1

No samples contained either colouring matter or preservative.

In the next paragraphs will be found a brief account of the adulterated samples.

Sample No. A 218.

There was a slight deficiency of the minimum amount of fat. A formal sample of the same farmer's milk taken three days later was satisfactory.

Sample No. A 226.

This sample was deficient of 18.3 per cent. of fat. The shopkeeper had had an unblemished record for a number of years and a letter of caution was considered adequate action.

Sample No. A 251.

Though this sample was bought as " Processed Sterilised Milk," it was really not milk at all, but what is technically known as " reconstituted milk," that is, milk made by mixing milk powder with water. A number of interviews took place between this department and the firm responsible, which terminated in a letter being sent by the Medical Officer of Health, in which the view was expressed " .....that any sale of your product under any description which includes the word ' milk ' constitutes an infringement of the Milk and Dairies (Amendment) Act, 1922. I further consider that if you use the description ' a substitute for milk,' your product must closely conform to the average composition of normal milk....."

Sample No. A 387 was a similar sample having the composition, fat 1.7 per cent. ; solids-not-fat 6.2 per cent. This sample was per force returned as " genuine," since it was sold under a name other than milk. It was originally made to approximate the composition of average milk and in view of the deterioration in sample No. A 387 and the fact that it is being sold exactly in the same way as is loose milk—except for the name—this department feels that it would be advisable in any prospective new legislation for foodstuffs to require that any liquid made from milk powder for sale by retail should contain not less than 3 per cent. of butter fat and 8.5 per cent. of milk solids-not-fat, no matter under what name it may be sold.

Samples Nod. A 311 and A 312.

These two samples were taken on delivery from a farmer and were 5 and 13 per cent. deficient in fat respectively. The farm was accordingly visited where it was found that the farmer had recently started milking by machine. No machine is capable of completely milking a cow, which must still be stripped by hand. The strippings are always the richest in fat and failure to add these to the remainder of the milking will inevitably lead to poor samples. The farmer had not realised this and he was cautioned that he must take the necessary steps to mix the strippings with the rest of the milking. This was believed to be a genuine mistake and subsequent samples taken proved genuine.

Samples Nod. A 431 and A 456.

Sample No. A 431 was bought in Salford. Analysis indicated a very small addition of water. A difficulty arose over this supply since it was an Eccles dairyman with but a few customers in Salford. Of course, the deficiency in this sample was so small that this department would not normally recommend a prosecution. However, the inspector attempted to obtain further samples and eventually bought sample No. A 456 informally in Eccles. On this sample, bought outside the Salford area, no action could be taken—it was bought for information—but it was fairly seriously deficient, this time in fat. At our request, the Cheshire County authorities took samples on delivery from the farmer in their area ; these samples were genuine.

This supply cannot be considered satisfactory and will be kept under observation.

Samples Nod. A 452 and A 453.

These samples each contained about 2 per cent. extraneous water. The farm was visited and the farmer attributed the matter to a small amount of cleansing water carelessly left in the cans. He was cautioned and promised to take the necessary steps to avoid a recurrence.

Sample No. A 515.

This sample, taken informally on delivery from a farmer, was 3.3 per cent. deficient of fat. A further formal sample taken the next day, was genuine, though of poor quality.

Samples Nod. A 646, 667, 668 and 670.

These were samples of farmer's milk taken on delivery to a Salford dairyman and found to be deficient in fat. The farm was visited the next day and "Appeal to Cow" samples taken by the Inspector. These latter samples showed that the milk was of naturally low quality. The farmer, in conjunction with the Cheshire Agricultural College, altered the feeding of his herd with a view to bringing the quality back to a figure above the presumptive minimum. Further samples were genuine.

Table 10 shows the composition of the "Appeal to Cow" samples taken in connection with the above.

TABLE 10.

No.	Total Solids.	Fat.	Solids-not-fat.	Fat Deficiency.
	%	%	%	%
A 671	12.08	3.10	8.98	—
A 672	12.30	3.30	9.00	—
A 673	11.88	2.75	9.13	8.3
A 674	11.84	2.80	9.04	6.6
A 675	11.73	2.75	8.98	8.3

Samples Nod. A 734, 737 and 739.

These were informal samples taken on delivery to Salford Institutions. This consignment consisted of eight cans, three cans of which contained milk deficient in fat, but the average fat content of the whole supply was 3.69 per cent.

On investigation, these deficiencies were found to be caused through very uneven periods of milking (8 and 16 hours respectively) and inefficient mixing of the milk. Further samples were taken (see Sample No. A 785), one of which was deficient in fat.

The effect of uneven periods of milking on the fat content of the milk has been definitely tested on several occasions, and a summary of the experiments carried out is published on pages 7 and 8 of the Ministry of Agriculture and Fisheries' Bulletin No. 16, "Variations in the Composition of Milk." Briefly, when the intervals are 12 and 12 hours, the morning fat exceeds the evening fat by 0.18 per cent. on an average of 22 tests, and when the cows are milked at 6 a.m. and 3-30 p.m., *i.e.*, periods of $14\frac{1}{2}$ and $9\frac{1}{2}$ hours, then the evening fat exceeds the morning fat by 1.09 per cent. on an average of 391 tests. It is an invariable rule that the longer the period between milking, the greater the total bulk of milk, but the smaller the fat percentage.

Sample No. A 785.

This was an informal sample taken on delivery to Salford Institutions in connection with the above samples. It was deficient in fat content to the extent of 13.3 per cent. This supply was sampled on three subsequent occasions and all the milk found to be above the presumptive limits.

Milk supply contracts require a minimum fat content of 3.25 per cent. and minimum non-fatty solids of 8.5 per cent. The farmer was interviewed and he made arrangements to equalise the periods between milking and for a more efficient mixing of the milk. The average of his daily bulk supply on the five occasions when it was sampled was 3.6 to 3.8 per cent. of fat.

Sample No. A 808.

This was an informal sample of farmer's milk found to contain a slight amount of extraneous water. Subsequent samples of this supply proved to be of good quality.

Samples Nod. A 1274, 1278, 1281, 1282, 1289, 1290 and 1293.

These represented the samples deficient in milk fat from two successive consignments of twelve churns each of certified milk delivered to Salford Institutions. The deficiencies varied from 1.66 per cent. to 14.33 per cent. in the above seven samples, but, on the other hand, the averages for the two complete deliveries were 3.76 and 3.73 per cent., figures well above the contract requirements of 3.25 per cent. and the presumptive legal limit of 3.0 per cent., showing that this deficiency had come about by incomplete mixing of the whole of the milk yield from the herd, and not to deliberate abstraction of milk fat.

The milking of this herd is performed mechanically, the milking-out of the cattle being done manually. This method of milking requires great care in the subsequent mixing of the two portions obtained, since the strippings are far richer in milk fat than the previous portion.

A strong letter of caution was sent to this supplier, pointing out the seriousness of the above deficiencies, and in his reply, the farmer stated that every effort would be made to efficiently mix the total milk yield of the herd by including the strippings with the appropriate portions of the mechanically-milked bulk.

Subsequent control samples were all of good quality.

Bottled Milk.

Sample No. A 613.

This was a formal sample which was found to be deficient of 6.6 per cent. of fat. Samples purchased from the wholesaler the next day were found to be genuine. The shopkeeper did not hold a warranty from his wholesaler and this department, under the circumstances, did not feel inclined to take action against a person who could not possibly have tampered with the milk.

A letter of caution was sent to the shopkeeper concerned,

Sample No. A 873.

This was a formal sample purchased from a shopkeeper and found to be deficient of 3.3 per cent. of fat. The wholesaler and farmer were sampled the following day and the milk found to be of genuine quality. The Inspector cautioned the shopkeeper with regard to the adulterated sample and advised him, in his own interests, to ask the wholesaler to supply him with a warranty.

Sample No. A 982.

This sample was purchased from a shopkeeper and found to be slightly deficient in fat. A formal sample taken from the wholesaler later in the day was found to be of good quality. As this slight deficiency was apparently caused through insufficient stirring of the bulk milk when bottling, the wholesale dairyman was cautioned.

Sample No. A 1030.

This formal sample purchased from a small shopkeeper was found to be deficient in fat to the extent of 10 per cent. Both the wholesaler and the farmer supplying the shopkeeper were sampled on delivery the following day. Of the seven samples taken, all were found to be genuine, although three were of poor quality.

The above four cases represent formal samples of bottled milk purchased from different retailers in Salford and found to be deficient in fat in varying amounts up to 10 per cent. Following the custom of this department, samples were taken from the wholesaler or farmer on the next delivery and in every case these were found to be genuine. The reason for this is not very far to seek, if one takes the more charitable view that the deficiencies in the bottled milk are due to carelessness in stirring the bulk during the process of bottling. The milk as delivered to the bottlers by the farmers is usually in churns, and is, of course, efficiently mixed by your sampling officer before sampling, the resulting figures, in the latter case, only being a true representation of the quality of the supply. It is apparent that where a large churn of milk is only stirred at the beginning of the process of, say, in the extreme case, hand bottling by an inexperienced or careless worker, by the time the last few bottles are reached, the cream in the tank will have had time to partially separate, with the result that the milk in some of these bottles will be rich in fat and others deficient. When the contents of one of the bottles poor in fat are obtained for analysis and the corresponding wholesale supply is genuine, it at once raises the presumption that bottling has been carelessly performed, assuming, of course, that the seal and contents of the bottle are intact.

One manner in which this point can be clinched is to take samples on delivery from the bottler. However, there are certain difficulties to be faced, firstly, that a bottler probably delivers a few bottles to each of several shops, and the same shop will not get poor milks on every occasion, and secondly, the number of deficient samples can only be a relatively small proportion of the whole and a large number may have to be obtained and analysed before a deficient one is obtained.

Your Analyst takes the view that a purchaser of a bottle of milk deficient in fat due to the above cause is just as prejudiced as if the milk had been sold directly from a churn without stirring. The only method by which a retailer can safely shelve the responsibility of selling bottled milk deficient in fat is that he should obtain a written continuing warranty with the supply that it is pure and contains all its fat and milk solids. A suggestion along the above lines was made by my predecessor a few years ago to the local Milk Dealers' Association, but that Association was not prepared to adopt this procedure.

Apart altogether from the cause of fat deficiency in bottled milk, in law there is only one person directly responsible for the quality of an article sold, and that is the retailer or individual who ultimately sells or exposes it for sale. In order that retailers as well as the general public should be protected over the sale of bottled milk, as is usual with other prepacked articles, the writer considers that retailers of this commodity would be well advised on their own account to obtain warranties from the bottler of the milk they sell, since in the interests of all milk consumers, it is not possible to continually pass over these deficiencies.

The following Table shows the relative figures for pasteurised and non-pasteurised milk retailed in Salford during the year. The division of samples into pasteurised and non-pasteurised is based upon information supplied by the Sampling Officer.

TABLE 11.

AVERAGE COMPOSITION OF PASTEURISED AND NON-PASTEURISED MILK.

Month.	PASTEURISED.			NON-PASTEURISED.		
	Fat.	Solids-not-fat.	Total Solids.	Fat.	Solids-not-fat.	Total Solids.
January	3.50	8.87	12.37	3.39	8.83	12.22
February	3.45	8.85	12.30	3.58	8.76	12.34
March	3.53	8.85	12.38	3.69	8.83	12.52
April	3.48	8.81	12.29	3.56	8.90	12.46
May	3.48	8.85	12.33	4.15	8.97	13.12
June	3.46	8.87	12.33	3.75	8.87	12.62
July	3.50	8.79	12.29	3.78	8.88	12.66
August	3.60	8.80	12.40	3.35	8.75	12.10
September	3.66	8.86	12.52	3.62	8.87	12.49
October	3.72	8.98	12.70	3.84	8.93	12.77
November	3.79	8.92	12.71	3.95	8.93	12.88
December	3.64	8.86	12.50	4.04	8.81	12.85
Yearly Average	3.56	8.86	12.42	3.74	8.87	12.61

TABLE 12.

ADULTERATED SAMPLES OTHER THAN MILK.

No.	Description.	Nature of Adulteration.	Remarks.
A 239	Shredded Beef Suet with Flour.	7% excess rice flour.....	Caution.
A 255	Iodine Lotion	Deficient 43% iodine	Caution. Guarantee of increased iodine content.
A 256	Iodine Paint	Deficient 65% iodine	
A 559	Blackcurrant Jam	50 parts per million sulphites.	—
A 582	Acetic Acid	2 parts per million of lead.	Caution.
A 699	Iodine Ointment, Non-staining.	Deficient 60% iodine....	Stock withdrawn from circulation.
A 710	Margarine	Label offence	—
A 816	Iodine Paint	Deficient 36% iodine....	Caution. Guarantee of increased iodine content.
A 845	Butter.....	13% excess water	Informal. Formal sample genuine.
A 925	Zinc Ointment	Deficient 12% zinc oxide.	Caution.
A 974	Beef Sausage.....	Contained preservative without declaration ; deficient in meat.	Caution.
A 1007	Tinned Sardines in Oil	30-40 parts per million of lead.	Stock surrendered and destroyed.
A 1009	Tinned Sild in Oil.....	2.2 grains per lb. of tin	Caution.
A 1036	Seidlitz Powder (Extra Strong).	40% excess tartaric acid	Manufacturers interviewed and cautioned.
A 1056	Blackcurrant Jam	70 parts per million sulphites.	Caution. Guarantee to reduce sulphur dioxide content.
A 1136	Lysol Soap	Deficient 75% lysol....	Firm interviewed, lysol content increased to 2%.
A 1181	Lysol Soap		
A 1167	Beef Sausage.....	32 parts per million of sulphites without declaration	Caution.
A 1169	Beef Sausage.....	57 parts per million of sulphites without declaration	
A 1170	Beef Sausage.....	9 parts per million of sulphites without declaration	
A 1323	Beef Sausage.....	96 parts per million of sulphites without declaration	Prosecution and conviction £3 3s. 0d. costs.
A 1324	Beef Sausage.....	100 parts per million of sulphites without declaration	
A 1390	Sweets.....	Very dirty	Stock surrendered and destroyed.
A 1407	Castor Oil	One bottle consisted of medicinal paraffin.	Labelling offence.
A 1426	Baking Powder.....	Only 2% available carbon dioxide.	Stock surrendered and destroyed.
A 1431	Margarine	0.9% excess water.....	Caution.
A 1442	Margarine	0.3% excess water.....	

TABLE 12.—*Continued.*

No.	Description.	Nature of Adulteration.	Remarks.
A 1483	Shredded Beef Suet with Flour.	Only 82% fat.....	Informal sample, formal samples genuine.
A 1506	Dried Prunes.....	Infested with grubs.....	Stock surrendered and destroyed.
A 1535	Camphorated Oil	2% excess camphor	Firm notified.
A 1574	Seidlitz Powder.....	18.5% excess Rochelle salt.	Weight of contents and form of label to be altered by manufacturers.

Butter.

Eleven samples of butter were examined during the year, one of which was adulterated. Sample No. A 845, bought informally from a multiple store in Salford, was found to contain 18.1 per cent. of water, equal to 13 per cent. excess moisture calculated on the limit of 16 per cent. allowed by section 11 of the Food and Drugs Act. A formal sample was taken the next day; this, however, was found to be genuine. It was not possible to take any action with regard to the first sample because of the manner in which it had been purchased, except that a strong letter of caution was sent to the proprietors.

Margarine.

Out of a total of nine samples examined during the year, three were classified as adulterated, although in one case the offence was solely one of wrong labelling. Sample No. A 710 contained on the label wording other than that of the word " margarine," and the weight of the contents, which are allowed by the Food and Drugs Act. The wholesalers were cautioned and they at once circularised their clients to the effect that the outer wrapper must in all cases bear a plain margarine label. Samples No. A 1431 and A 1442 were informal and formal samples from the same shop and containing respectively 16.9 and 16.3 per cent. of moisture, against the legal limit of 16.0 per cent. Although a definite offence had been committed, it was not felt that it was sufficiently grave to justify legal proceedings; the manufacturers, however, were cautioned and notified as to the results of the analyses.

Cheese.

Ten samples of cheese have been examined, all of which were reported as genuine.

Shredded Beef Suet with Flour.

Two informal samples were found to be deficient in fat, due to the addition of excessive amounts of rice flour. Sample No. A 239 contained 81.1 per cent. of fat, Sample No. A 1483 containing 82 per cent. In order to prevent the

shredded suet from adhering together, it has been the practice of the trade for some years now to coat the shreds with a small quantity of rice or other flour. In a few cases, the amount added was considered excessive and amounted to adulteration. For guidance in this respect, the Society of Public Analysts in 1931 adopted the standard of not less than 83 per cent. of fat for shredded beef suet—it being expressly stated that this standard was to be considered as extremely lenient, covering all variation in composition likely to arise from the manufacturing processes. In the latter case, formal samples were genuine and contained 86.0 and 87.3 per cent. of fat. In the case of Sample No. A 239, the firm were cautioned by letter.

Jam.

Eighteen samples have been examined during the year, of which two were reported as unsatisfactory. In both cases, the samples consisted of black-currant jam and it is noteworthy that the offence consisted in the presence of preservative in the form of sulphur dioxide, over and above the amount of 40 parts per million permitted by the Public Health (Preservatives, etc., in Food) Regulations, 1925.

Sample No. A 559 contained 50 parts per million of sulphur dioxide, while Sample No. A 1056 contained as much as 70 parts. In considering these samples, it must be borne in mind that it has been recognised for several years that thick skinned fruits, of which apricots and blackcurrants are types, very tenaciously retain a portion of any sulphur dioxide which comes into contact with them, and that a considerable amount of the jam manufactured in this country is prepared from fruit pulp, or even dried fruit, which has been preserved by the addition of sulphur dioxide in amounts up to 1,500 or even 2,000 parts per million. It is appreciated that if this type of preserved fruit has to be used for jam making, considerable difficulty will be experienced in obtaining a product which does comply with the requirements of the law. At the same time, while the addition of such large amounts of sulphur dioxide as the above will no doubt be very effective in preserving the fruit until such time as it is convenient for the jam maker to manufacture his product, it must not be lost sight of that the treatment is a very drastic one, incorporating as it does the use of an extremely irritant chemical in an amount far in excess of that allowed in any article suitable for direct human consumption. The regulations are very clear on the point that fruit preserved in this way is only to be used for specific purposes, and the very small amount of preservative allowed to be retained by the finished article is also very definitely stated ; and it would appear, in the writer's opinion, that these details were incorporated in the regulations for the specific purpose of ensuring that every effort would be made on the part of the manufacturers either to give the pulp sufficient treatment to remove practically all the sulphur dioxide, or, on the other hand, to use at least a proportion of fruit which was either fresh or preserved by less drastic means.

In this latter respect, it may be pointed out that in recent years very great strides have been made in preserving fruit by sterilisation, by heat, by refrigeration and by the use of concentrated syrups (sugaring) ; the fruit preserved by

these means is never contaminated by irritant chemicals, and it would appear that their use in jam manufacturing would obviate the apparent difficulty of controlling the sulphur dioxide content of the final product. In the event of this treatment not being considered feasible for all fruits, it should be at least possible to preserve a proportion of the more sulphur dioxide retentive fruits by these methods, in order to overcome the difficulty experienced at a later stage, of easily obtaining a product which complies with the regulations. In your Analyst's opinion, the use of irritant chemicals as preservatives for foodstuffs cannot be considered as the ideal method of treatment and when, in addition, in certain cases difficulty is found in satisfactorily coping with their presence during subsequent manufacturing processes, it would suggest that trial of less drastic methods would be beneficial to consumers and manufacturers alike, in that a preservative-free product would be obtained without the necessity of intricate chemical control of each batch manufactured.

In the case of Sample No. A 559, no further action was taken, but the amount present in Sample No. A 1056 could not be considered as only slightly in excess of the maximum allowed, and after communicating with the manufacturers, an undertaking was given that in future, consignments would comply with the regulations.

Tinned Foods.

Thirteen samples were examined, one of which was regarded as unsatisfactory, while another was certified as being unfit for human consumption. In both cases, analysis showed the presence of an excessive amount of a poisonous metal.

An informal sample of tinned sardines in oil, No. A 1007, purchased from a shop in Salford, was found to contain lead to the extent of 30 parts per million. In order to ascertain whether this was an isolated case or whether the whole of the stock was affected, two further tins from the same shop were obtained, and these gave figures of 28 and 42 parts per million of lead respectively.

Of the metals commonly used in commerce, lead is the most toxic and is all the more dangerous in that it is cumulative in its action. Very great care is usually exercised by food manufacturers to exclude any possibility of their product being contaminated by lead, and it is to their credit that only in very rare cases is this metal detected in tinned foods in amounts of even as much as 5 parts per million. Various limits have been from time to time suggested for the maximum amount to be permitted in sardines, the most lenient of these being the one of twenty parts per million suggested at the conference of Port Medical Officers of Health at the Ministry of Health in 1933, and the samples in question were examined to see whether they conformed to this standard. In the writer's opinion, this standard is an extremely lenient one, when one considers that in nearly all modern manufactured tinned foodstuffs, lead may be considered to be absent in detectable amounts. From a consideration of the investigations of Lampitt and Rooke (*Analyst*, 1933, page 733) it is shown that the lead found in

sardines is attributable to a method of cooking in the manufacturing process which involves steam heating on metal grids which were covered with ordinary solder, a compound of lead and tin, and it is at this stage that the fish become impregnated by this metal, and not due to lead contamination from the tin containers themselves. The substitution of grids containing no lead in their composition would bring sardines in line with other tinned foods, and I think from recent analyses of certain brands of tinned sardines, which in the past contained appreciable amounts of lead and now only contain at the most traces, that this substitution has been effected by the majority of manufacturers. With ordinary care in the choice of cooking apparatus, etc., I think a standard of even five parts per million of lead could be easily adhered to by the manufacturers of all types of tinned goods.

In view of the gross excess of lead in the contents of all the tins examined, the sardines were certified as unfit for human consumption and the shopkeeper's stock of 72 tins were surrendered to this department and destroyed. No evidence has been obtained since that any other consignments of this particular brand are to be found in Salford. The Port Medical Officer at the port of entry of the consignment into this country has been informed as to the quantity of lead found.

Tinned Sild in Oil, Sample No. A 1009.

This sample was found to contain tin equivalent to 2.2 grains per pound. In 1908 a report was made to the Local Government Board by Drs. Buchanan and Schryver (*Analyst*, 1909, 34, 121) in which it was stated that the presence of tin in amounts greater than 2 grains per pound was both unusual and unnecessary and also might be taken to signify that the food in question had become potentially dangerous to health. This opinion was based upon actual experiments, which proved in cases where amounts greater than 2 grains of tin per day were consumed, there was direct evidence of the accumulation of the metal in the body. Practically all tinned foods will show the presence of small amounts of tin, *i.e.*, quantities below 1 grain to the pound, owing to slight action of the foods on the inside of the tin during processing and storing; these small amounts can be ignored as not having any significance in relation to health. Acid fruits, especially tomatoes, are liable to contamination, especially if the tins have been in stock for some time. Tinned foods of all kinds should be removed from the containers as soon as it is opened, because the action of the acids in the foods on the metal is accelerated in the presence of air.

With regard to the sample under discussion, a letter was sent to the suppliers, drawing their attention to the fact that the tin present was slightly in excess of the usually accepted limits.

Tinned Fruit Salad in Jelly.

Two samples were examined and although neither was reported upon adversely, mention might be made of the striking difference found on opening the tins. In the case of Sample No. A 1026, the inside of the tin was stained

almost black and the contents had a distinctly unpleasant sulphur-like odour. On analysis, the contents were found to contain tin equivalent to 1.6 grains per pound, and sulphur dioxide equivalent to 16 parts per million. Sample No. A 1027, however, showed no evidence of discoloration, or unpleasant odour, the amount of tin in the sample was negligible and sulphur dioxide being present to the extent of 10 parts per million. From an inspection of the outside of the tins and labels, both samples appeared to be of recent origin. In the case of the latter sample, the inside of the tin had been lacquered as a protection against chemical action by the contents, while the other tin was untreated. It would appear that the gelatine used in making the jelly had introduced sulphur dioxide permitted as a preservative in gelatine) into the tins and this on decomposition had formed a film of dark coloured tin sulphide on the exposed surfaced of the unlacquered tin.

Sausage.

Thirteen samples were examined and of these six were reported as adulterated. An informal sample of beef sausage, No. A 974, was supplied without a declaration that it contained preservative, and was found on analysis to contain sulphite equivalent to 40 parts per million of sulphur dioxide. According to the Public Health (Preservatives, etc., in Food) Regulations, 1925, sausage and sausage meat are only allowed to contain preservative (up to 450 parts per million of sulphur dioxide) if its presence is declared to the purchaser either by notice displayed in the shop or by wrapper on the sausage itself. The amount found in this sample was relatively small and the shopkeeper was cautioned and informed of the requirements of the regulations.

The meat content of this sample was also found to be only 44 per cent. and in view of the fact that this department considers 50 per cent. of meat a minimum standard, a further sample was taken on delivery from the maker to the shop. This second sample, however, contained 53 per cent. of meat and was therefore genuine. In the cases of Samples No. A 1167, A 1169 and A 1170, containing respectively 32, 57 and 9 parts per million of sulphite calculated as sulphur dioxide, the offences were identical to that in the case of Sample No. A 974, and similar action was taken, a letter of caution being sent to each shopkeeper.

Sample No. A 1323 was an informal sample of beef sausage also sold without declaration of the presence of preservative and in this case the amount found was 96 parts per million of sulphite expressed as sulphur dioxide. A formal sample was purchased later the same day and this was also found to contain sulphur dioxide, the amount being 100 parts per million. On enquiry being made by your Inspector, it became apparent that the makers of the sausage had not attached a preservative label to each parcel of sausage delivered to the shop, as was required by the regulation. The amount of preservative present in this case, although considerably below the maximum allowed, could not by any means be considered negligible, and in fact was well up to the average found in Salford in sausage labelled as containing preservative. It is your

Analyst's opinion that the absence of a preservative label, while legally implying that the sausage in question are unpreserved, will, at the same time, necessarily convey the impression to the purchaser that they must be of recent manufacture and will therefore improve their selling value. Legal proceedings were instituted both against the retailer for selling to the prejudice of the purchaser and also against the makers for aiding, abetting, counselling and procuring. The cases were heard before the Stipendiary Magistrate, who dismissed the retailer under the Probation of Offenders Act, but in the case against the makers, while stating that he was satisfied that there was no fraudulent intent, he came to the conclusion that proper precautions had not been taken to ensure correct labelling, and he therefore dismissed the summons under the Probation of Offenders Act and ordered the defendants to pay £3 3s. 0d. costs.

Food Standards.

At this stage it might not be inappropriate to review the position with regard to standards for foods generally. There are certain legal standards such as those for the composition of milk, dried and condensed milks, for the amount of water in butter, margarine and milk blended butter, and for the amount of preservatives allowed in various foodstuffs, which are incorporated in the Food and Drugs (Adulteration) Act, 1928, or in regulations made by the Minister of Agriculture and Fisheries or the Minister of Health under powers conferred by either the above Act or by the Public Health Acts. There are standards made under the Agricultural Produce (Grading and Marking) Acts, 1928 and 1931, to which National Mark goods must comply ; commodities included are jam, cream cheese and other varieties of cheese, and malt extract. Again, we have the voluntary standards for jam agreed upon between the Food Manufacturers' Federation and the Society of Public Analysts, and the minimum standard for fat in shredded suet agreed upon by the Committee of Public Analysts ; and lastly, we have standards fixed locally by the Magistrates' Benches on evidence put before them by Public Analysts and the members of the various trades. Examples are standards for the composition of sausage, lemon cheese and potted meats.

It will, therefore, be seen that with the exception of those for certain milk products, there are very few statutory regulations governing the composition of pre-packed or compounded foodstuffs. In the writer's opinion a legal standard for butter fat in cream is long overdue, and the conditions under which the word " cream " can be used in connection with other articles of food such as cream cakes and ice cream should be definitely defined. Legal standards for the composition of various types of cheese, sausage, jams, vinegars and fruit juices are needed. Compounded articles and articles sold under a protective label as declaring the presence of a mixture should have the percentages of the essential ingredients declared to the purchaser ; for example, the percentage of coffee in coffee and chicory, the percentage of mustard in mustard compound and the percentage of egg in substances claiming to have eggs as an ingredient, should in each case be apparent to any purchaser on inspecting the label.

That the question of widening the scope of legal standards is having attention is apparent in that a Departmental Committee on the Composition and Description of Food was appointed in 1931, and its report was presented to Parliament in 1934. The terms of reference were as follows :—

> " To consider whether it is desirable that the law relating to the " composition and description of articles of food should be altered so as " to enable definitions or standards to be prescribed or declarations of " composition to be required, for articles of food other than liquid milk ; " and if so to recommend what alterations of the law are required."

Evidence was taken by the Committee from numerous Associations, etc., interested directly or indirectly with food manufacture and it is noteworthy that virtually all the witnesses agreed that " modern statutes and orders regulating the composition of food have operated in the public interest, and that their enforcement has proved practicable." The Committee were directed to consider standards generally, and the report is, therefore, couched in general terms ; the only commodities specifically mentioned are infants' and invalids' foods in paragraph 25 and sweetmeats in paragraph 26. The conclusions and recommendations of the Committee are reproduced below :—

> " .....
>
> " 17. Our answer to the question which we are asked to report upon " is that it is desirable that the law relating to the composition and descrip- " tion of articles of food should be altered so as to enable definitions or " standards to be prescribed or declarations of composition to be required, " for articles of food other than liquid milk.
>
> " 18. The enabling power should be vested in the Ministry of Health " for England and the Department of Health for Scotland.....
>
> " 19. At the same time we wish to state that in our opinion the case " for the extension of standards or definitions to all articles of food is not " made out. We consider that in a large number of cases the housewife " to-day gets an article of the nature, substance and quality she demands, " and that she would not be benefited by a multitude of standards, defini- " tions or declarations of composition. We are satisfied, however, that " in some cases standards or declarations of composition or definitions of " some kind are necessary for the protection of the consumer.
>
> " 20. We think the main thing to be aimed at is that the public, " when buying any important article of food, should know what they are " getting. A considerable amount of elasticity must be allowed in the " preparation of many articles, and we should recommend that the power

" to fix standards or definitions should only be used where it is shown that " it is necessary for the protection of the public health (including nutrition) " or the protection of the pocket of the consumer.

" 21. Declarations of composition may be prescribed either in addition " to or in substitution for standards or definitions in cases where it is " desirable that the purchaser should be informed of some fact relating to " either the composition or the preparation of the article.

" 22. In any case the power should only be exercised if the question " of conformity with the requirements or with the declaration as the case " may be can be checked by chemical analysis or otherwise.

" 23. The guiding consideration should be that as far as possible the " same term should always mean the same thing. It is obvious, however, " that the scope of useful regulation must be limited by the considerations " (*a*) that it is impossible to standardise flavour and general quality, and " (*b*) that in some commodities the purchaser may be fully capable of " judging for himself the nature of the article he is buying.

" 24. Although we were not directed to consider standards for par- " ticular articles of food, we came to the conclusion that we could not " properly deal with the general question without hearing the views of " various witnesses concerning standards, definitions and declarations of " composition in regard to some articles. We have accordingly taken " evidence specifically in regard to cheese, sausages, meat pastes, potted " meat, invalids' foods, infants' foods, jam, ice cream, confectionery and " other articles. This we did merely in order to be able to report on the " general question and we do not propose to make any detailed recom- " mendations as to the articles which in our opinion need standards, " declarations of composition or definitions and those which do not.

" 25. We may record, however, that almost all our witnesses (except " those concerned only with specific articles) have urged that foods specially " offered for infants and invalids should bear on the label of the package " containing them a declaration of their contents. We think it is important " in this case that the purchasers of such foods should know what they " contain.

" 26. At the lower end of the scale we should place sweetmeats. We " do not consider that standards, declarations of composition or definitions " are at present needed for these articles unless it is found desirable to " prohibit the use of certain ingredients. It was suggested by some " witnesses that the term 'toffee' should only be allowed to be used for a " sweetmeat prepared from sugar and butter. The evidence of the Manu- " facturing Confectioners' Alliance showed that the amount of toffee manu-

" factured in this country to-day is very large and that the bulk of it is " made with a vegetable fat. We conclude that the purchasers of toffee " to-day are getting what they want, although it is not usually made with " butter.

" 27. There are two further points to which we wish to draw attention. " The first of these relates to the extraneous matter such as arsenic, lead, " tin or other impurity, with which food may become contaminated in the " process of collection or preparation. As this concerns foods generally " and the substances employed in connection therewith, it includes certain " articles to which standards or definitions have already been applied. It " should, therefore, be treated as a general question. The second point is " the addition to an article of food of an ingredient which is claimed to be " necessary for its production in a state fit for carriage or consumption, as, " for example, starch in shredded suet. We are of opinion that the limits " or standards which are at present usually adopted under both of these " points should come under review.....
" ....."

Baking Powder.

Out of five samples examined, one, No. A 1426, was reported as practically worthless. The powder was packed in a paper wrapper, and when opened, had formed a solid cake due to the slow absorption of moisture. The determination of available carbon dioxide by liberation with ammonium sulphate solution gave a nil result. Similarly, no carbon dioxide was liberated on treatment with hot water and only 2 per cent. available on treatment with mineral acid. The standard usually adopted in this country for baking powder is a minimum of 6 per cent. of available carbon dioxide. The remainder of the stock of 24 packets was surrendered to this department and destroyed, and the shopkeeper at the same time advised that baking powder packed only in paper should be stored in an air-tight container to preserve its quality.

Sweets.

One informal sample, No. A 1390, taken from a small shop was condemned because of its extremely dirty condition due, presumably, to very long exposure in the shop window. The remainder of the stock was surrendered for destruction.

Dried Fruit.

Thirteen samples were examined and one, a sample of dried prunes, No. A 1506, on examination was found to be infested with grubs. The remainder of the stock was also destroyed.

DRUGS.

Iodine Preparations.

Successful prosecutions were instituted in 1934 by this department against a number of iodine preparations found to be deficient in iodine and which were then called "Solution of Iodine." As a result of these cases, articles have appeared bearing the name "Iodine Lotion" and "Iodine Paint Methylated." It is still considered by this department that 2 per cent. of iodine is a reasonable minimum standard, in spite of the fact that neither of the latter descriptions appears in the British Pharmacopoeia or the British Pharmaceutical Codex.

Samples No. A 255, Iodine Lotion, and No. A 256, Iodine Paint, contained respectively 0.7 and 1.14 per cent. of iodine. The makers were cautioned by letter and a written guarantee given that future consignments would contain at least 2 per cent. of iodine.

In the case of Iodine Paint (Methylated), Sample No. A 816, the iodine content was 1.28 per cent., no potassium iodide was present. During an interview with the manufacturers, it transpired that the formula used should have resulted in a product containing 2.25 per cent. iodine. Your Analyst suggested that the use of dilute alcohol (77 per cent.) without the aid of potassium iodide had prevented the complete solution of the iodine. This manufacturer has since included 1.25 per cent. of potassium iodide in his formula with satisfactory results.

A sample of Iodine Ointment, Non-staining B.P.C., Sample No. A 699, was found to be deficient of 60 per cent. of iodine. The manufacturers stated that they ceased to make this type of preparation in April, 1935, and they agreed to exchange the stock held by the shopkeeper for their present product, which is full British Pharmaceutical Codex quality.

Acetic Acid.

An informal sample, No. A 582, was found to contain 2.0 parts per million of lead. This sample was not labelled "Dilute Acetic Acid B.P." but gave figures approximating to the same with the exception of that for lead, which should be 0.5 parts per million. As this product was intended for human consumption, a letter of caution was sent to the packers, drawing their attention to the quantity of lead present.

Zinc Ointment.

Five samples were examined during the year, and one was found to be deficient in zinc oxide to the extent of 12 per cent. This is only slightly in excess of the 10 per cent. error usually allowed for careless dispensing and a letter of caution was considered adequate action.

Seidlitz Powders.

Five samples were examined, two of which were adversely reported upon. Three types of powder are recognised in the British Pharmacopoeia or the British Pharamaceutical Codex, depending on the amount of Rochelle salt they contain ; these are, Double Strength Seidlitz Powder, Extra Strong Seidlitz Powder and Seidlitz Powder, and containing respectively 15.0 gm., 11.25 gm. and 7.5 gm. of Rochelle salt, the weight of sodium bicarbonate and tartaric acid being constant (2.5 gm. of each) in all types.

A Seidlitz Powder (extra strong), Sample No. A 1036, contained 40 per cent. excess tartaric acid. As these packets are made up on an automatic weighing machine, the makers were at a loss to account for the variation ; the remaining packets at the shop were weighed and were all found to be accurately dispensed.

Sample No. A 1574 was purchased as a Seidlitz Powder and was found on analysis to contain 18.5 per cent. excess Rochelle salt. The packet in which the powder was wrapped bore the label " Extra Special Seidlitz Powder." There is no powder described in the British Pharmaceutical Codex under this title. At an interview with the manufacturers it was pointed out that the amount of Rochelle salt present would raise the presumption that the powder was incorrectly dispensed as a " Seidlitz Powder," and at the same time the label " Extra Special " might easily be misconstrued as relating to the B.P.C. " Extra Strong Seidlitz Powder." The view of this department is that any article dispensed in an unusual manner should have its composition definitely declared on the label. It was agreed that in future the label " Extra Strong Seidlitz Powder B.P.C." would be used, and the amount of Rochelle salt increased to correspond with this description.

Castor Oil.

Three samples were examined and one was reported as adulterated. This informal sample, No. A 1407, consisted of two small bottles, which were each labelled by the packers as castor oil. An apparent difference in the viscosity of the contents of the bottles resulted in them being examined separately, when one was found to be genuine castor oil and the other medicinal paraffin. The current prices of these two commodities are almost identical, ruling our any suggestion of fraudulent intent. The manufacturers were cautioned, and gave an undertaking to exercise stricter supervision of labelling in future.

Camphorated Oil.

One sample of camphorated oil B.P., No. A 1535, was found to contain 22.0 per cent. of camphor. The limits stated in the British Pharmacopoeia are 19.0 and 21.0 per cent. While it was not considered that this discrepancy was serious, it was felt that if labelled of B.P. quality, an article should be dispensed in such a manner as to conform with its requirements. The attention of the manufacturers was drawn to the composition of this article.

Lysol Soap.

In the case of a sample of Lysol soap, No. 9665, examined in October, 1935, and found to be practically devoid of lysol, a summons was taken against

the retailer and manufacturers under the Merchandise Marks Act, and the case came before the Stipendiary Magistrate in January, 1936. Your Analyst, in his certificate, gave the opinion that Lysol soap should contain at least 2 per cent. of lysol. The Stipendiary held he had no power to fix a standard under the Merchandise Marks Act, and as the soap contained traces of lysol (of the order of 0.1 per cent.), he could not convict. The case was dismissed and costs awarded against the Corporation.

In view of the fact that this decision would debar this department from taking any further cases under the Merchandise Marks Act, in which a standard is involved, a form of prosecution particularly necessary in the case of pre-packed drugs, it was decided to lodge an appeal. This was heard at the King's Bench Divisional Court on the 19th May before the Lord Chief Justice, Mr. Justice Humphreys, and Mr. Justice du Parcq. Giving judgment, the Lord Chief Justice said the appeal ought to be allowed. The Stipendiary was wrong in holding that so long as there was any lysol or cresol in the soap he was unable to convict. In his Lordship's opinion, the offence was made out, and the case would go back to the Magistrate with the direction to find that the offence charged was proved. Mr. Justice Humphreys and Mr. Justice du Parcq concurred.

On the 24th June, the case was again before the City Stipendiary Magistrate when he found that Lysol soap should contain at least 2 per cent. of lysol and the retailer was fined five shillings and the manufacturers fined ten shillings and five guineas costs.

Informal and formal samples of a different make of Lysol soap, Nos. A 1136 and A 1181, have since been examined and were found to contain only 0.2 per cent. of cresols, corresponding to 0.4 per cent. of lysol. The manufacturers were interviewed, and they agreed to withdraw the present stocks from sale and in future to manufacture no Lysol soap containing less than 2 per cent. lysol.

Miscellaneous Samples.

Contract Samples	329
Miscellaneous Health Department	16
Waters	3
Police and City Coroner	7
City Engineer	11
Own Information, etc.	9
Soot Gauges	47
Sulphur Dioxide (Lead Peroxide)	24
Swimming Bath Waters	199
	645
Sulphur Dioxide (Volumetric method, daily tests)	253
Sunlight Tests	1,937
	2,835

Contract Samples.

Soap—Pale	8
White Windsor	7
Carbolic	7
Soft	6
Liquid	13
Flakes	14
Powder	8
Bread	11
Scouring Tablets	8
Scouring Powder	13
Liquid Metal Polish	9
Metal Paste	6
Turpentine Substitute	5
Floor Sweeping Compound	12
Jam and Marmalade	35
Cocoa	3
Margarine	20
Cheese	27
Lard	22
Sausage	47
Meat Extract	4
Floor Polish	12
Stainless Steel Cutlery	18
Furniture Cream	5
Casement Cloth	3
Methylated Spirits	2
Whisky and Brandy	2
Washing Blue	2
	329

As will be seen from the above list, 329 samples have been examined under this heading during the year, a figure substantially above that for the year 1935, in which the facilities available in the department were first utilised by the Central Purchasing Committee for checking analytically the quality of certain of the commodities bought on contract. Analyses have not only been made on samples submitted with the tenders, but control samples have also been taken from deliveries during the contract period, assurance being thus obtained that over a period of time supplies are of an equable quality.

Specifications have also been introduced for meat extract, sausage, metal polish, metal polish paste, floor polish, furniture cream, scouring powder, scouring tablets and sweeping compounds. In the case of margarine, constant variation in the composition of the fats used by the manufacturers, due to changes of temperature, etc., render a detailed specification almost inoperable;

this product is now bought on a guarantee of vitamins A and D potency equal to that of best summer butter, the first of these being checked in this laboratory. Margarine is thus obtained, at an increase in cost of only 23 per cent., which is equal to butter in both food value and growth promoting properties.

Swimming Bath Waters.

The use of swimming baths has increased greatly in recent years. In order that available facilities should be used to the best advantage, the Ministry of Health in 1929 published a report on the "Purification of the Water of Swimming Baths." This report contains certain practical suggestions for the guidance of Local Authorities, which may be summarised as follows :—

For indoor baths, it is recommended that filtration should be continuous by means of pressure filters, with a "turnover period" for the whole of the water in the baths of not more than four hours. In order that rapid filtration should be effective, it is necessary to add a "coagulant," that is, an aluminium compound with the necessary alakline salt to form a flocculent and retentive precipitate of aluminium hydrate, which prevents solid particles and some of the bacteria from passing through the filters. After filtration, the clear liquid is heated, aerated and chlorinated by means of chlorine gas or by chloramine. The water entering the bath should then comply with the following chemical guarantees :—

1. The water issuing from the plant shall contain not more than 0.5 parts and not less than 0.2 parts per million of free chlorine.
2. Be definitely alkaline to methyl orange, but free from caustic alkalinity.
3. Be of a clarity so that a 19 S.W.G. platinum wire can be seen through a depth of six feet.
4. Fully aerated, sparkling and attractive in appearance.

Provided that the bath is not hopelessly overcrowded, the bacterial purity will then be approximately that of drinking water. It is pointed out that the maintenance of an alkaline condition is important to neutralise the acid continually formed from the alumina and chlorine, which often causes complaints of smarting eyes, often wrongly attributed to the presence of excess chlorine. A pH value between 7.0 and 8.0 will be adequate protection in this respect.

During the year, 199 samples of swimming bath water were examined, all the baths being tested at least once a week during the summer bathing period. The results, on comparison with the above chemical guarantees, agreed substantially in the majority of cases ; in any instances where differences did occur, they were at once reported to the Baths Superintendent.

Pharmacy and Poisons Act, 1933.

Legislation came into force during the year which prevents the promiscuous selling of practically all substances of a poisonous or corrosive nature. Poisons can now only be obtained either through a registered pharmacist or, in the case of certain poisons, through shopkeepers whose premises have been especially

registered for this purpose. The administration of the Act with regard to shopkeepers other than pharmacists is the duty of each Local Authority and concerns the sale of all poisons included in Part II of the Poisons List. (The Poisons List is made by the Secretary of State under section 17 of the Pharmacy and Poisons Act, 1933, and includes the names of all substances which are to be treated as poisons). Before a shopkeeper can sell Part II poisons, he must apply to have his name placed upon the list kept by the Local Authority, at an initial cost of 7s. 6d. The chief effect of this legislation is to restrict the sale of carbolic disinfectants, strong acids and alkalis and arsenical compounds, etc.

174 applications have been made and approved during the year ; one listed seller has since vacated his premises, leaving 173 premises at present on the register in Salford. Your Sampling Officer, who is the Local Authority's Inspector under the Act, has paid 261 visits to the premises of listed sellers.

Since the Act came into force on the 1st May, 1936, 17 samples have been submitted for analysis, comprising five carbolic disinfectants, five non-poisonous disinfectants and seven solutions of ammonia. Of these, two of the phenol disinfectants and one sample of ammonia were purchased from shopkeepers not registered as Listed Sellers of Part II poisons. Prosecutions were instituted in the cases of the phenol disinfectants, resulting in total fines of £5 and £1 1s. 0d. costs.

The solution of ammonia contained 12.4 per cent. w/w of ammonia and was therefore a poison under Part II of the Poisons List Confirmation Order, 1935. In view of the fact that this was the only bottle of ammonia in the premises of the shopkeeper, a letter of caution was deemed sufficient action.

In addition, three manufacturers or packers were notified that the labelling of certain of their products was either unsuitable or inadequate.

Fertilisers and Feeding Stuffs Act, 1926.

Ten samples have been examined, of which three were fertilisers and seven feeding stuffs. One of the samples of feeding stuffs was taken and examined at the request of another Local Authority. The analysis of all the fertilisers agreed with the statutory statement, but in the case of the feeding stuffs, five showed variation in one particular each from those declared. In no case was the presence of any injurious substance detected.

Appended is a list of the unsatisfactory feeding stuffs, together with the variations found.

				%		%
A 1376	Grass Nut	Fibre,	found	4.50—	Declared	5.50
A 1378	Ground Linseed Cake	Oil,	,,	10.10—	,,	8.00
A 1379	Layers Mash Pellets.....	Oil,	,,	5.25—	,,	4.50
A 1380	Growers Mash.....	Fibre,	,,	5.10—	,,	6.60
A 1548	Maize Germ Cubes	Oil,	,,	5.10—	,,	4.50

MERCHANDISE MARKS ACT, 1926.

Imported Goods Marking Orders.

Seventy-three shopkeepers have been cautioned during the year for various infringements of the above orders. Three shopkeepers were prosecuted for exposing for sale imported butters without disclosing their country of origin. Fines of £1 0s. 0d., 10s. and 10s. costs and 10s. were imposed respectively.

A shopkeeper was also prosecuted for exposing for sale imported raw tomatoes bearing a show ticket with the words " Guaranteed Real English " ; the two defendants in this case were each fined 10s. and 10s. costs.

Measurement of Solar Radiation.

The number of observations made under this section has been 1,142 by the potassium iodide method, 256 by the nitrite method, 248 by the photographical method and 291 by the Campbell-Stokes bright sunshine recorder ; the integrating solarimeter, of course being in continuous use.

The Potassium Iodide Method.

This process has been in continuous use for ten years at four stations, three in Salford and one at the Corporation's Sanatorium at Nab Top, Marple. There is no doubt that the method suffers from several disadvantages in that the results are affected by the purity of the reagents, by the shape and composition of the bottles, by the amount of free iodine actually present at various stages of the exposure and by the amount of air in contact with the potassium iodide solution. At the same time, however, if the experiments are carried out under strict conditions, such as those suggested in this report for the year 1935, it has been shown that the results are extremely consistent and the method, of course, has the great advantage that any number of comparative experiments can be carried out at the same time without duplicating expensive apparatus.

The total monthly figures for 1936, together with the totals for the last five years are given in Table 13.

TABLE 13.

Measurement of Daylight.

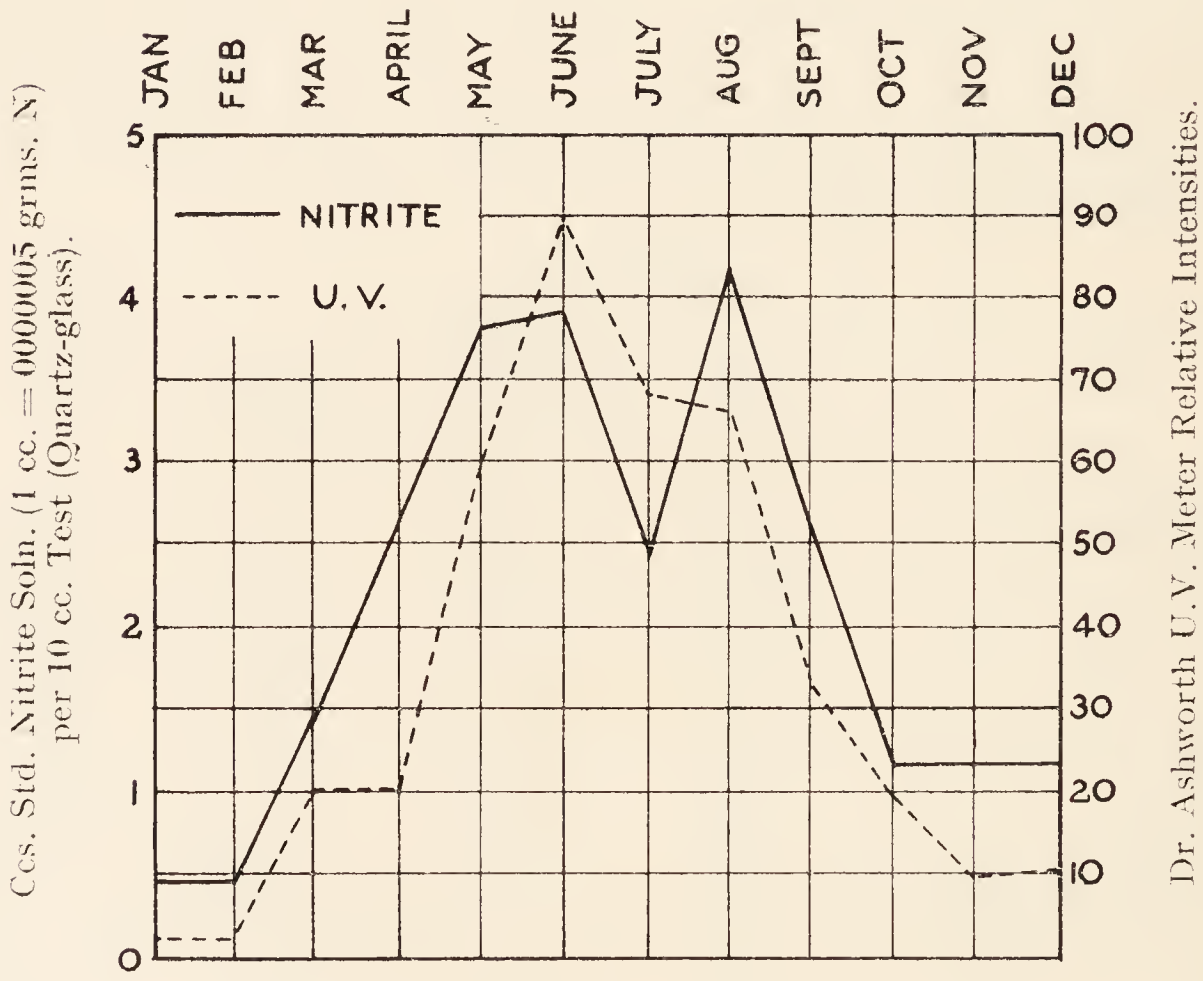
Month.	Regent Road.	Nab Top Sanatorium, Marple.	Ladywell Sanatorium.	Drinkwater Park.
January	62.0	92.7	57.7	76.9
February	72.8	84.7	67.9	70.8
March	127.4	241.0	118.4	143.8
April	143.4	201.4	159.0	164.7
May	216.7	228.8	197.8	201.8
June	238.8	323.4	229.8	248.4
July	208.4	321.8	186.8	198.2
August	235.8	352.2	231.0	229.4
September	125.7	122.7	80.7	101.4
October	89.6	107.6	96.7	104.8
November	62.1	95.4	69.0	79.8
December	69.1	101.7	49.6	56.1
Yearly Totals.				
1936	1651.8	2273.4	1544.4	1676.1
1935	1650.2	2493.6	2051.1	1965.6
1934	1743.2	2323.4	2162.2	2070.6
1933	1627.6	2311.7	2073.8	1953.1
1932	1796.7	2123.6	1958.6	1819.1
Yearly average for five years	1693.9	2305.1	1958.0	1896.9
Comparative percentage figures	73.5	100.0	84.9	82.3
Loss against Nab Top Sanatorium	26.5	—	15.1	17.7

The above results are expressed as milligrammes of iodine liberated by an exposure from 9 a.m. to 9 a.m.

On examining the figures for 1936, two points at once attract attention, firstly, the sudden drop in all the values for July with a corresponding rise in August. As will be pointed out at a later stage, this is noticeable in other methods of measuring daylight and is almost certainly due to the heavy rainfall experienced in July and the resulting cloudy conditions. Secondly, the

FIG. 2.

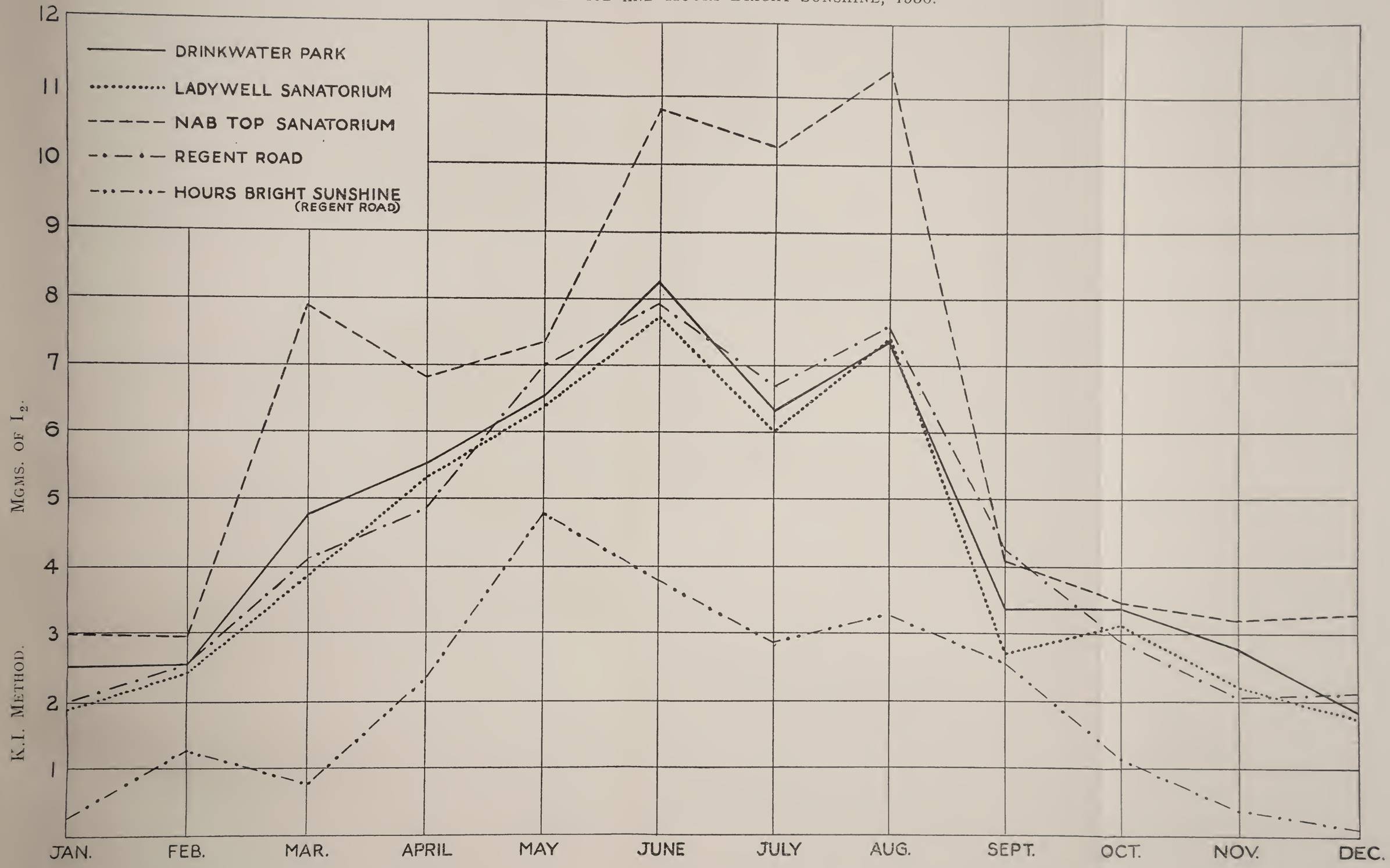
NITRITE BY GILLAM AND MORTON'S MODIFIED METHOD AND ULTRA-VIOLET RAY METER RESULTS.



fact that for the first time, the results for Regent Road, Drinkwater Park and Ladywell Sanatorium are almost identical, while in the summer months those for Nab Top in the country are very considerably higher. Previously, Regent Road has always been distinctly below any of the other stations. While it is known that new sources of atmospheric impurities have appeared at Drinkwater

Fig. 1.

K.I. Method and Hours Bright Sunshine, 1936.



Park and Ladywell Sanatorium, it is too early to say with any degree of certainty whether these have affected the results to the extent noticed or whether they are due solely to the fine weather experienced in the early summer followed by the unusually cloudy conditions of July. The two points noted are very clearly indicated graphically in Fig. 1.

The Nitrite Method.

A little over a year ago a method for testing ultra violet light was developed in these laboratories from the original work by Gillam and Morton*. These workers found that nitrite is produced by the action of ultra violet light in an alkaline solution of potassium nitrate, and they suggested that this photo-chemical reaction could be used to measure ultra violet light in daylight. The method adopted is essentially the exposure of two identical solutions of alkaline nitrate side by side, one in a quartz tube, the other in a glass tube, and to measure the difference in the amounts of nitrite found either by Griess-Ilosvay's method or Riegler's method. The figures obtained are presented graphically in Fig. 2. Although this nitrite can only be formed by ultra violet light of wave-length below approximately 320 mu†, the striking resemblance of this curve to those obtained by the potassium iodide method should be noted, which would seem to indicate that the ultra violet rays below 320 mu vary in direct proportion to the total amount of solar radiation received.

Dr. Ashworth's Ultra Violet Ray Meter.

The first type of this instrument which was discussed in this report for 1932 has been superseded by one in which the paper wedge is replaced by varying thicknesses of wire gauze, which obviates any variation in the transmission factor due to dampness or to discoloration of the wedge by sunlight.

The transmission of the glass filter used is between 300 mu and 400 mu, with a maximum transmission of 80 per cent. at 360 mu, falling steadily to each of the limits mentioned. The wavelength of the rays of the greatest medicinal value is of the order 300 mu. In the writer's opinion, while the instrument will give definite information regarding the relative intensitiy of the total ultra violet rays in solar radiation, in view of our knowledge of the extremely small amounts of ultra violet rays of wavelength 300 mu present, especially in winter sunshine, it cannot be assumed that a positive reading for ultra violet rays with this instrument also indicates the presence of rays of therapeutic value. The figures for 1936 are given in Fig. 2 and for comparative purposes, the results of tests on a similar instrument, carried out at the Meteorological Station at Southport, are included in Table 14.

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* J. Soc. Chem. Ind. 1927, 46, 415.

† Ordinary glass bottles will transmit all rays longer than about 320 mu. Quartz transmits down to about 200 mu. The visible light from the sun covers the range 400–750 mu. Ultra violet light from the sun is normally 300–400 mu. Antirachitic ultra violet light is below 313 mu; Antirachitic violet light will prevent rickets.
(1 mu is one-millionth of a millimetre).

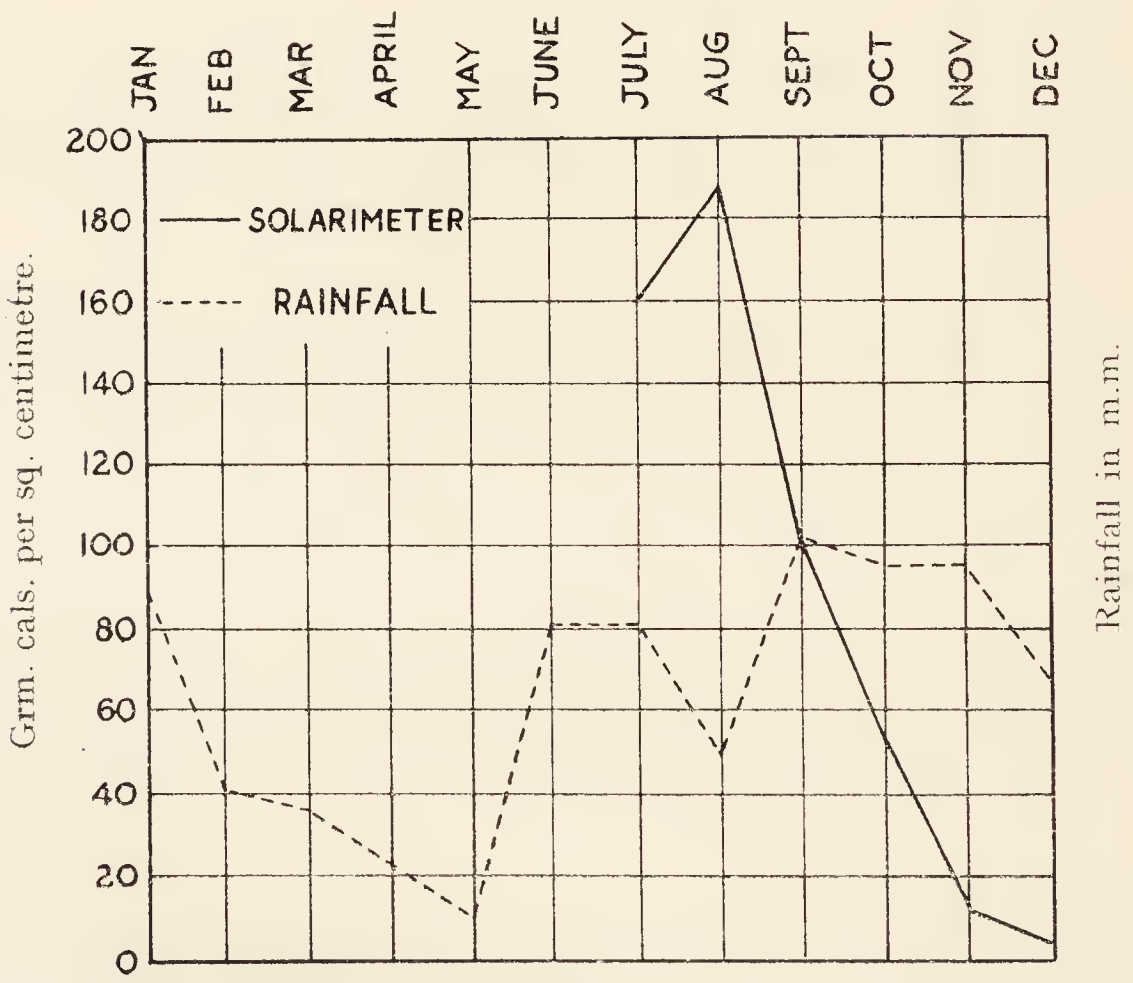
TABLE 14.

RELATIVE INTENSITIES OF ULTRA VIOLET LIGHT.

Month.	Regent Road, Salford.	Hesketh Park, Southport.
January	3.4	—
February	2.6	—
March	21	52
April	20	85
May	61	115
June	89	245
July	68	183
August	66	92
September	32	47
October	18	25
November	8	11
December	11	10

FIG. 3.

SOLARIMETER READINGS
AND RAINFALL IN PEEL PARK IN M.M.



The most striking feature of these results is the much greater increases in ultra violet rays noticed at Southport during the spring and early summer. A ready explanation for this may be found in that the smoke cloud which cuts off so much of the ultra violet rays is less dense and is more readily dissipated above a seaside town. Another factor which will have a considerable bearing on the point is the duration of the rainfall, which is probably considerably shorter in the case of the town mentioned.

Integrating Solarimeter.

The department was fortunate in obtaining during the early part of the year an instrument of the above type, which is essentially a Moll pattern thermopile coupled with a sensitive milliampere-hour-indicator. The solar radiation is, therefore, transferred into and recorded as electrical energy, the apparatus, of course, having been previously calibrated by being exposed to a standard source of radiation. The results obtained by this instrument are in terms of absolute units of energy and have a distinct advantage over those obtained by any of the methods previously mentioned. The thermopile is non-selective and records total solar radiation, both visible and invisible. The figures available do not cover a year's readings, but Fig. 3 shows graphically the results so far obtained, which besides illustrating in a very striking manner the falling off of solar radiation since August, also reproduces the drop in light value for July, indicated by the potassium iodide and the nitrite methods. The only other instrument of this type, so far as the writer knows, in use in this country, is a recording solarimeter recently installed at the Meteorological Office, South Kensington. Comparative figures over three months for this instrument are given in Table 15. The results are expressed in gramme calories per square centimetre and they again indicate very considerable screening of daylight by smoke clouds in the air above this City.

TABLE 15.

Solarimeter, Daily Mean Radiation.

Month.	Salford.	South Kensington.
September	99	188
October	53	110
November	12	42

Sulphur Pollution.

253 tests have been carried out throughout the year at Regent Road by the volumetric sulphur method, and 24 monthly tests at both Regent Road and Ladywell Sanatorium by the lead peroxide method. In the former process the sulphur dioxide present in the air is returned as parts per million, while by the latter method, atmospheric sulphur pollution is returned as milligrammes of

sulphur trioxide per 100 square centimetres of exposed surface. Both processes show a very striking rise during the winter months, and the volumetric process, which enables daily determinations to be made, also shows very high results during foggy weather, vide figures for February and November, thus demonstrating the tenacity with which smoke pollution hangs over the City during these periods.

TABLE 16.

SULPHUR POLLUTION.

Month.	Milligrammes Sulphur Trioxide per 100 sq. cm. Daily Average		Parts Sulphur Dioxide per million of Air. Daily Average.
	Regent Road.	Ladywell Sanatorium.	Regent Road.
January	6.16	6.07	0.070
February	5.38	5.25	0.094
March	3.59	3.62	0.075
April	3.28	4.60	0.073
May	2.57	2.85	0.073
June	2.51	2.34	0.047
July	3.37	3.47	0.042
August	4.52	4.45	0.039
September	6.21	6.70	0.037
October	4.57	3.78	0.033
November	6.27	6.00	0.093
December	5.63	5.71	0.071

Examination of Soot Gauge Deposits.

The work of examining the deposits in the special gauges placed at various points in the City has been continued. Standard gauges are situated at Peel Park, Salford; Ladywell Sanatorium; Drinkwater Park Hospital; and the Corporation Sanatorium at Marple, Cheshire.

In uniformity with the results expressed by other stations, of which there is a number scattered throughout Great Britain, the results are expressed in metric tons per square kilometre. The metric ton is equivalent to slightly more than the British ton, whilst there are 2.59 square kilometres to the square mile, so that to convert metric tons per square kilometre to English tons per square mile, it is necessary to multiply by 2.55 or roughly $2\frac{1}{2}$.

The following are the average monthly results that have been obtained during the year. As is to be expected, the results show that the heaviest deposit is obtained at Peel Park within the City area; Ladywell Sanatorium and Drinkwater Park hold intermediate positions, whilst, as is to be expected, the air at Marple is, comparatively speaking, "pure."

In order that comparison may be made with other districts, the average figures are given for the gauges giving the greatest and least deposits.

The gauge showing the greatest deposit is Liverpool, Netherfield Road, and that showing the least is Glasgow, Mearnskirk Hospital.

Perhaps the most noticeable feature of the results is the acid nature of the deposits. This is shown by the pH values of the water collected. The pH due to the carbonic acid in the air would be about 5.5. Figures below this, therefore, indicate an acid deposit, and higher figures an alkaline deposit. Considering that Marple is fairly well in the country and shows a general record better than those obtained in the City, its acid rainwater is noteworthy. This shows how widespread may be the drift of the acid smoke from cities.

The figures for Ladywell Sanatorium are especially interesting. While still holding an intermediate position when taken collectively, certain of the figures, notably total solids, insoluble combustible matter other than tar, soluble solids, sulphates, chlorides, acidity and pH value, approach very closely or even exceed those for Peel Park. As was pointed out in the Annual Report of the Medical Officer of Health for 1935, all the deposit gauges show very definite improvement in the amount of total solids, etc., for the five years 1931 to 1935, as compared with the previous five years 1926 to 1930. In the past year, the results for Marple and Peel Park maintain this improvement, but those for Ladywell Sanatorium show a very decided setback. The reason for this is not very difficult to find, in that certain new sources of atmospheric pollution have appeared in the district, which also receives the prevalent wind from a large industrial area, which is at present experiencing a boom period. As was mentioned previously, it is possible that the same series of circumstances resulted in the unusually low figures for daylight recorded in this district by the potassium iodide method.

TABLE 17.

SOOT GAUGE OBSERVATIONS.

Monthly Averages : Metric Tons per Square Kilometre.

		Salford : Peel Park.	Salford : Ladywell Sanatorium.	Salford : Drinkwater Park.	Marple : Nab Top Sanatorium.	Netherfield Road, Liverpool.	Glasgow, Mearnskirk Hospital.
Rainfall in millimetres		63.3	77.0	77.3	63.9	79.0	95.0
Tar	Insoluble Matter	0.26	0.13	0.12	0.05	0.19	0.03
Carbonaceous Matter other than tar		2.12	1.98	1.66	0.62	3.95	0.31
		6.46	4.80	4.11	1.43	15.39	0.78
Ash		4.08	2.69	2.33	0.76	11.25	0.44
Loss on ignition	Soluble Matter	1.54	1.97	1.20	0.75	3.24	0.86
Ash		2.87	2.95	2.13	1.22	4.15	1.45
		4.41	4.92	3.33	1.97	7.39	2.31
Total Solids		10.87	9.72	7.44	3.40	22.77	3.09
Sulphates	Included in Soluble Matter	1.05	1.25	1.07	0.58	1.91	—
Chlorine		1.00	1.25	1.11	0.67	1.39	—
Ammonia		0.01	0.03	0.03	0.02	0.14	0.06
Acidity		0.33	0.53	0.37	0.24	0.31	—
pH		4.5	4.2	4.4	4.5	4.7	6.4

TABLE 18.

pH Values for the Four Stations.

Month.	Peel Park.	Drinkwater Park.	Ladywell Sanatorium.	Nab Top Sanatorium, Marple.
January	4.4	4.2	4.6	5.0
February	4.4	4.2	4.2	4.2
March	4.2	4.4	4.2	4.8
April	4.5	4.6	4.0	4.5
May	5.0	5 1	4.8	4.8
June	5.8	4.6	4.1	4.5
July	4.9	4.2	4.2	4.4
August	5.2	4.2	4.1	4.3
September	4.4	4.8	4.4	4.6
October	4.2	4.0	4.2	4.4
November	4.0	4.1	4.0	4.5
December	3.5	3.9	3.5	3.9
Average for 1936	4.5	4.4	4.2	4.5

APPENDIX I.

Freezing Point of Milk Samples—1936.

Sample No.	Fat.	Solids-not-fat.	Total Solids.	Freezing Point Δ Hortvet.	Added Water.	
					Calc. from Sale of Milk Regulations	Calc. from Freezing Point.
A 431	3.25	8.40	11.65	0.520	1.20	1.90
A 452	3.80	8.70	12.50	0.517	none	2.50
A 453	4.10	8.65	12.75	0.519	none	2.10
A 454	3.10	8.90	12.00	0.542	none	none
A 455	3.40	8.65	12.05	0.532	none	none
A 456	2.50	8.90	11.40	0.534	none	none
A 525	3.25	8.45	11.70	0.539	0.60	none
A 805	3.50	9.00	12.50	0.554	none	none
A 806	4.00	8.90	12.90	0.557	none	none
A 808	3.85	8.32	12.17	0.482	2.10	9.10
A 885	3.45	8,50	11.95	0.547	none	none
A 1042	3.05	8.55	11.60	0.534	none	none
A 1043	3.80	8.75	12.55	0.547	none	none
A 1044	3.30	8.60	11.90	0.533	none	none
A 1045	3.70	8.80	12.50	0.538	none	none
A 1046	3.70	9.00	12.70	0.538	none	none
A 1068	3.40	8.50	11.90	0.534	none	none
A 1069	3.40	8.60	12.00	0.537	none	none
A 1070	3.20	8.70	11.90	0.534	none	none
A 1071	3.25	8.60	11.85	0.534	none	none
A 1093	3.40	8.55	11.95	0.536	none	none
A 1144	3.30	8.35	11.65	0.528	1.80	0.40
A 1219	3.90	8.70	12.60	0.530	none	none

SECTION VII.

Maternity and Child Welfare Department, Municipal Maternity Home and Babies' Hospital, and the Supervision of Midwives.

Staff.

1 Senior Lady Medical Officer, who is also Inspector of Midwives.
2 Assistant Lady Medical Officers.
1 Assistant Inspector of Midwives.
16 Health Visitors.
3 Masseuses, 2 of whom are also employed in the Artificial Sunlight Clinic.
7 Clerks.

Medical Officers.

In addition to being responsible for the general administration of the Department and for the inspection of midwives practising in the City, the Senior Medical Officer has, during 1936, attended five Child Welfare Sessions and two Ante-natal Sessions weekly at the Corporation's Clinics and Centres, and one Child Welfare and two Ante-natal Sessions monthly at the Royal District Nurses' Home. She has also visited and inspected the children attending seven Nursery Classes at elementary schools and paid monthly visits to the Salford Nursery School. The Senior Medical Officer for Maternity and Child Welfare is a member of the Committees of four Voluntary Societies undertaking work in connection with the Department.

The second Medical Officer attended three Child Welfare and two Ante-natal Clinics per week, and was in charge of the Maternity Home and Babies' Hospital until it was closed in April, 1936. From that date until Dr. Arnsby resigned in August, 1936, she attended sessions at four Child Welfare and one Ante-natal Clinic per week, and was also partly employed at Hope Hospital. Since her resignation, the Clinics attended by Dr. Arnsby have been undertaken by a Locum Tenens.

The third Medical Officer attends eight Child Welfare and one Ante-natal session per week. In conjunction with three of the Child Welfare sessions, Dr. King has conducted immunisation clinics. In addition, she has visited the Nursery Classes attached to 14 elementary schools in the City.

Health Visitors.

Each Health Visitor is allotted a district, to the visiting of which most of her time is devoted. It is her duty to visit each child residing on her district, and to keep a record of its progress until it reaches the age of five years; to visit and advise expectant mothers, and to carry on the work of the various Maternity and Child Welfare Clinics and Centres.

Propaganda work must of necessity form a very large part of the duties of Health Visitors and the time spent in this type of work cannot be shown by figures. The Health Visitors have continued an active campaign in connection with Diphtheria Immunisation. Four members of the Health Visiting Staff have been responsible for the Department's Demonstration windows at the Health Offices and have during the year arranged displays showing the importance of "Correct Methods of Infant Feeding"; "Adequate Sleep"; "Fresh Air and Sunlight" and "Habit Formation."

At the Encombe Place Child Welfare Centre a series of talks were given by the Health Visitor in charge. Most of the mothers who attended these talks entered a competition as to their knowledge in the subjects dealt with, which was held towards the end of the year, and their efforts proved very satisfactory.

During 1936, the Medical Staff of the Children's Wards at Hope Hospital have notified the Maternity and Child Welfare Department of all discharges from the Hospital of children under 5 years of age, and have supplied details of the feeding and treatment which the parents have been advised to carry out. These cases are "followed-up" immediately by a Health Visitor in order that advantage may be taken of the facilities offered by the Department, *i.e.*, free milk, sunlight treatment, massage, etc. During the year 1936, 139 such cases have been investigated, and 201 visits paid.

A similar arrangement has been made with the Staff of Ladywell Sanatorium, and all cases under 5 years of age are visited immediately upon discharge.

The following table shows the number of visits by the Health Visitors during 1936 :—

TABLE C.W. 1.

Wards.	First Visits to Children under 1 year.	Total Visits to Children under 1 year.	Total Visits to Children 1 to 5 years.	First Visits to Expectant Mothers.	Total Visits to Expectant Mothers.	Total Visits.
Albert Park.....	258	886	1532	93	120	2538
Charlestown.....	247	1069	2017	74	86	3172
Claremont	122	399	843	20	25	1267
Crescent.....	278	1319	2201	101	144	3664
Docks.....	176	749	1325	51	80	2154
Kersal.....	149	456	671	32	35	1162
Langworthy.....	165	603	1633	34	38	2274
Mandley Park.....	223	635	1239	39	48	1922
Ordsall Park.....	209	772	1444	61	71	2287
Regent.....	298	1173	1630	73	81	2884
St. Matthias'.....	209	1568	2549	84	138	4255
St. Paul's.....	176	858	1350	36	66	2274
St. Thomas'.....	221	937	1657	97	99	2693
Seedley	114	423	973	11	14	1410
Trinity.....	222	1073	2416	107	183	3672
Weaste	168	550	1118	36	40	1708
Special Visits.....	5	145	357	....	3	505
	3240	13615	24955	949	1271	39841

Maternity and Child Welfare Clinics and Centres.

CLINICS. Municipal Buildings, Regent Road, Salford.
Murray Street, Broughton.
Police Street, Pendleton.

CENTRES. Ordsall Centre, Landseer Street, Salford.
10 and 12, Encombe Place, Salford.
St. John's Schools, Langworthy Road, Pendleton.
Congregational Church, Irlams-o'th'-Height.
Municipal Buildings, Regent Road, Salford.

The change-over from the Teneriffe Street Clinic to the new Broughton Clinic took place early in January, 1936. The work of the new Clinic promises to be entirely satisfactory both to patients and Staff.

The Clinics are open daily and the Centres weekly, and the object of the staff is to make the work educational and preventive. Every child attending is weighed weekly, and is thoroughly examined by the Medical Officer at its first attendance, and at regular monthly intervals until it is one year old. Medical examinations are then made every three months unless the child is receiving massage, sunlight, or other special treatment, when examinations are made more frequently.

The cases attending the Clinics and Centres are "followed up" by the Health Visitors, who help the mothers to carry out the instructions given.

Table C.W. 2 shows the number of attendances at the Child Welfare Centres and the number of consultations held during 1936.

Ante-Natal Clinics.

The City is served by the following Ante-natal Clinics :—

Regent Road Clinic	2 sessions per week.
Pendleton ,, ...	1 session per week.
Broughton ,, ...	1 ,, ,, ,,
Hope Hospital ,, ...	2 sessions per week.
Royal District Nurses' Home Clinic	1 session per week.

Every effort is made by the Staff of the Department to encourage mothers to attend an Ante-natal Clinic as early as possible in their pregnancy, and to continue to attend regularly until their confinement.

At the Ante-natal Clinics pregnant women are examined and advised at their first attendance and at regular monthly intervals until their confinement. Abnormal cases are seen more frequently and when necessary patients are referred to a specialist or to a hospital for the appropriate treatment. The Maternity and Child Welfare Department have the advantage of being able to co-operate easily with other sections of the Health Department whose services are used for the benefit of patients, *i.e.*, Tuberculosis Department for chest complications and X-Ray examinations in cases where diagnosis by other means is difficult ; Pathological Department for various tests to assist in diagnosis

TABLE C.W. 2.

ATTENDANCES AT CHILD WELFARE CLINICS AND CENTRES DURING 1936.

CLINICS AND CENTRES.	NEW CASES.		TOTAL ATTENDANCES.		CONSULTATIONS.	
	Under 1 year.	Over 1 year.	Under 1 year.	Over 1 year.	Under 1 year.	Over 1 year.
Regent Road Clinic	180	135	2,248	3,790	954	1,535
Broughton Clinic	469	240	6,382	4,441	2,431	1,714
Police Street Clinic	478	84	8,316	5,609	2,635	1,771
Ordsall Centre	133	27	2,509	1,655	705	416
Encombe Place Centre	277	79	4,961	3,035	1,503	906
Seedley Centre	249	34	4,552	3,023	995	662
Regent Road Centre	192	34	2,962	1,939	931	560
The Height Centre	95	16	1,968	711	547	240
Royal District Nurses' Home	160	—	469	47	300	—
	2,233	649	34,367	24,250	11,001	7,804

and treatment; Dental Department for cases in urgent need of dental treatment; Venereal Diseases Clinic where patients who are found to be in need of treatment are referred; and Hope Hospital where patients in need of Hospital treatment during pregnancy can be referred and admitted to the Ante-natal ward.

It has not yet been found possible to establish a Post-natal Clinic in connection with the district Clinics. It has, however, for some years been the practice of the Clinic Medical Officers to advise nursing mothers at the ordinary sessions. During the year, 248 consultations of this type took place.

Table C.W. 3 shows the number of attendances at the Ante-natal Clinics, and the number of consultations held during 1936.

TABLE C.W. 3.

ATTENDANCES AT ANTE-NATAL CLINICS DURING 1936.

Clinics and Centres.	Individual Cases.	Total Attendances.	Consultations.
Regent Road Clinic	530	1,313	1,313
Broughton Clinic	170	290	290
Police Street Clinic	170	412	412
Ordsall Centre	35	35	35
Encombe Place Centre	47	47	47
Seedley Centre	5	5	5
Regent Road Centre	—	—	—
The Height Centre	4	4	4
Hope Hospital Clinic	1,259	5,354	1,259
District Nurses' Home Clinic	302	913	505
	2,522	8,373	3,870

Maternal Mortality.

There were 17 maternal deaths in Salford during the year 1936. Each case was thoroughly investigated and a report thereon forwarded to the Maternal Mortality Committee of the Ministry of Health. In 10 cases death was considered to have been unavoidable. In the remaining seven cases it was considered that death might have been avoided. Two of these cases had received no Ante-natal care, in one case the intelligent co-operation of the patient was lacking and in four cases death was due to puerperal sepsis following abortion.

The problem of reducing the Maternal Death Rate is still receiving the careful attention of the Department and every effort is being made to reduce the Rate to a minimum.

Birth Control.

In April, 1934, the Council decided to accept financial responsibility for cases referred by the Maternity and Child Welfare Medical Staff to the "Salford Mothers' Clinic," for advice and information relating to contraception.

The cases referred are married women in whose cases pregnancy is, in the opinion of the Medical Officer, liable to be detrimental to the health of the mother.

During 1936, 29 cases were referred to the Clinic, 10 of whom attended.

Massage Treatment.

Massage treatment is given for Rickets and other Orthopædic conditions, at the Clinics and Centres. The results in all cases where the children are brought regularly, and for a sufficient length of time, are very satisfactory. The children attending for massage treatment are seen regularly by the Medical Officers. In cases where the mothers cease attending before the children are officially discharged, the Health Visitor investigates and invites them to re-attend. After they have been discharged, the mothers are asked to bring them regularly to the Child Welfare Centres in order that they may be kept under observation.

During the year 1936, the following cases have been dealt with :—

Clinics and Centres.	No. of Sessions held Weekly.	No. of Regular Cases.	No. of Casual Cases.	Cases Discharged Cured.	Total No. of Attend-ances.
CLINICS—					
Regent Road	10	160	80	33	3940
Teneriffe Street	3	80	60	19	1208
Police Street	2	95	65	16	1366
CENTRES—					
Encombe Place	1	57	37	4	551
Ordsall	1	34	12	7	540
Seedley	2	50	33	8	739
Babies' Hospital	1	20	9	9	104
	20	496	287	96	8448

Artificial Light Clinic.

The work of this Clinic continues to be successful. The conditions for which artificial sunlight is administered are Rickets, Anæmia, Marasmus and Debility following acute infectious diseases. The results obtained are very gratifying, and only a few cases fail to respond to treatment. After discharge from the Sunlight Clinic each child is kept under observation by the Medical Officer at the Child Welfare Centre. In a few special cases, a second course of treatment has been found necessary. The treatment is administered by a competent operator under the supervision of the Medical Officer. All cases are examined regularly during the course of treatment.

The following are the Sunlight Clinic figures for the year 1936 :—

Individual cases	253
Total attendances	3301
CASES DISCHARGED :—	
Very much improved	15
Improved	70
No improvement owing to irregular attendance	117

Transfer of Information to the School Medical Department.

During the past four years, histories of children attaining the age of five years, have been transferred to the School Medical Department. It has not been possible with the staff available to transfer the whole of the cases, but in every case where the child's health has not been satisfactory, a resumé of all the information which has been collected by the Department is sent to the School Medical Officer, together with a note of the school which the child is to attend.

Measles.

The compulsory notification of Measles came into force on May 15th, 1936. Since that date every case of measles notified has been visited by a Health Visitor and advice given as to adequate isolation and proper nursing of the patient.

Cases appearing to be in need of Hospital treatment were reported to the Senior Medical Officer for Maternity and Child Welfare, and in most cases arrangements were made with the patient's own medical adviser, and the patient removed to Hospital. From May 15th until the end of 1936, 205 cases were notified and visited, and 15 cases removed to Hospital.

Free Milk Scheme.

Application for assistance under the above Scheme has been made in respect of 1,038 families during 1936. In 919 cases milk was granted free, in 22 cases at part-payment, and 97 applications were refused on account of the family income being in excess of the amount allowed by the Scale which is used to determine necessity.

During the year, a total of 1,474 children and 236 pregnant women were assisted.

Sewing Classes.

Sewing classes are held on one half day per week at four Centres, at which mothers are taught to make hygienic clothing and "thrift" garments, i.e., garments made from cast-off adult clothing, for their children. A Health Visitor attends each of these classes, and at three of the Centres help is given by voluntary workers who are members of the Salford Mothers' Guild and Ladies' Public Health Society.

Dinners for Expectant and Nursing Mothers.

Arrangements are made with the Salford Mothers' Guild and Ladies' Public Health Society for the serving, on every full working day, of dinners for expectant and nursing mothers at the Ordsall, Encombe Place and Police Street Centres. One Health Visitor is in attendance at least one day per week at each Centre, the remainder of the work being carried on by voluntary assistance. Every expectant mother attending the Centres for dinners is asked to attend the Ante-natal Clinic regularly, and is kept under medical supervision.

Diphtheria Immunisation.

Immunisation Clinics have been held, in conjunction with ordinary child welfare sessions once per week, throughout the year at the Pendleton, Broughton and Ordsall Centres. Whilst the Health Visitors are still experiencing some difficulty in persuading parents to allow their children to be immunised, the results of their efforts during 1936 have been more encouraging than in past years. A total of 5,043 attendances of children under the age of 5 years was recorded in the year, and 942 children were brought for the complete course.

Home Helps.

The applicants for Home Helps are usually known to the Maternity and Child Welfare Department through the Free Milk Scheme, and are consequently deserving cases. Home Helps are only supplied where there is absolutely no one to look after the home and other children whilst the mother is in bed. The Home Help attends at the home for ten days from the day of confinement, her hours being from 8 a.m. to 2 p.m., for which she receives from the Corporation 4s. 0d. per day, but provides her own food. Her duties are to look after the house and children generally, see older children off to school, and prepare meals for the mother and the rest of the family. She does not do the family wash, but may, if necessary, wash baby clothes in readiness for the Midwife's visit. As far as possible Home Helps are supplied from the district in which the patient lives, for the sake of convenience, and in order to save travelling expenses. If it is necessary to supply a Home Help who lives some distance away from the patient, reasonable travelling expenses are allowed.

There are four Home Helps on the books at present, they being women who are particularly suited for the work, and who are well known to the Health Visitors as to character, reliability, etc.

The Scheme has been in operation since 1920, and has worked very satisfactorily. During the year 1936, 4 women have been employed as Home Helps and 19 necessitous cases have been assisted.

Children Act, 1908, and Children and Young Persons Act, 1932.

The following is a report of work done in the administration of the Acts during 1936 :—

Cases on Register at end of 1935		44
New Registrations during 1936		25
Children removed from Register		31
Including—		
Children removed from Salford	14	
,, adopted without reward	3	
,, attained age of nine years	5	
,, returned to parents	5	
,, admitted to institutions	3	
,, died	1	
,, remaining on Register		38
Total Visits paid during 1936		476

Nursery Classes and Nursery Schools.

It is most desirable that all children attending Nursery Classes and Nursery Schools in the City should be medically inspected at regular intervals. In schools where the numbers of such children are small, and in all cases of children between the ages of four and five years, this work is carried out by the Assistant School Medical Officers. Where there are larger classes, however, the Senior Maternity and Child Welfare Officer visits the schools.

During the past year the Maternity and Child Welfare Medical Officers have visited and examined 625 children attending the Nursery Classes at 21 Elementary Schools, and the Senior Medical Officer for Maternity and Child Welfare has also visited the Salford Nursery School, Hulme Street, each month. The number of children attending Nursery Classes is increasing year by year.

In most cases the mothers of the children were present at the time of examination and were advised as to the treatment and management of their children. In several cases the children were referred to the Child Welfare Centres for observation, others were referred to Hospitals for the appropriate treatment, eye defects being sent to the Manchester Eye Hospital, and severe dental caries to the School Medical Dental Clinic. The School Dental Officer had 319 consultations with cases so referred during 1936.

TABLE C.W. 3.—Notification of Births.

Wards.	Live Births Notified By					Births transferred to other Local Authorities	Total live births notified.	Live births not notified.	Still-births notified.	St. Mary's Still-births
	Mid-wives.	Medical Practi-tioners.	Manchester Hospitals and Other Local Authorities.	Municipal Maternity Home.	Hope Hospital.					
Albert Park	136	16	13	3	69	5	232	5	10	1
Charlestown	159	3	5	3	82	2	250	2	2	1
Claremont	59	15	7	6	26	2	111	5	12	—
Crescent	160	24	7	3	88	—	282	—	6	—
Docks	103	4	—	3	58	7	161	—	12	—
Kersal	56	5	34	3	33	1	130	7	8	2
Langworthy	99	—	3	7	61	—	170	1	10	—
Mandley Park	152	9	53	1	33	32	216	5	6	1
Ordsall Park	116	2	4	1	69	—	192	—	11	—
Regent	131	15	5	2	80	1	232	—	5	—
St. Matthias'	114	37	5	3	63	—	222	1	13	1
St. Paul's	122	—	—	1	53	3	173	—	11	—
St. Thomas'	121	—	2	6	78	—	207	1	7	—
Seedley	54	—	5	7	39	1	104	2	4	—
Trinity	115	38	6	2	67	3	225	—	15	2
Weaste	103	1	5	1	56	15	151	2	11	—
	1,800	169	154	52	955	72	3,058	31	143	8

Municipal Maternity Home and Babies' Hospital.

The following figures show the work done from January 1st to April 20th, 1936, when the Hospital was closed :—

Maternity Department.

Admissions	53
Births	52
Stillbirths	2
Cases where Medical Assistance was Required	24

Babies Department.

Cases Admitted during 1936	16

Discharges :

Cured.

Rickets	7
Malnutrition	3
Malnutrition and Rickets	2
Malnutrition and Bronchitis	1
Marasmus	3
Dyspepsia	3

Improved.

Marasmus	1
Rickets	1

No improvement—Discharged at parents' request.

Rickets	1
Anæmia	1
Malnutrition	2

Died.

Marasmus	1
Transferred to Hope Hospital	5

Supervision of Midwives.

During 1936, 69 midwives notified their intention to practise in Salford. Of these, 12 midwives were on the Staff of Public Institutions and five were attached to Private Nursing Homes, leaving 52 domiciliary midwives of whom 41 resided in the City. During 1936, 10 midwives removed from the district, five being from institutions and three from nursing homes. Two midwives were newly registered and five notified their change of address during the year.

The midwives are regularly visited, and their books, instruments, etc., inspected by the Assistant Inspector of Midwives under the supervision of the Senior Medical Officer. During the year, 325 visits were paid to midwives, and in addition 764 miscellaneous visits were paid, making a total of 1,089.

From time to time, meetings are held at the Police Street Child Welfare Clinic, where midwives may discuss with the Medical Officer, any difficulties which may arise in their practices, and where the Medical Officer brings to their notice any points which she wishes them to observe.

During the year, 1,600 cases were attended by midwives, and 240 cases were attended by doctors with midwives acting as maternity nurses.

Notifications.

Under the Midwives Act, 1902, midwives are required to make the following notifications to the Local Supervising Authority :—

1. Each time they require to call in a doctor.
2. Any contact with infectious disease other than puerperal fever or puerperal pyrexia.
3. Stillbirths.
4. Deaths of infant or mother.
5. Substitution of artificial feeding for breast feeding.

Medical Assistance.

During the year, 822 notifications of a midwife having sent for medical assistance were received, the causes being as follows :—

Deformed Pelvis	2
Abnormal Presentations	57
Ante-partum Hæmorrhage	24
Post-partum Hæmorrhage	17
Uterine Inertia	123
Obstructed Labour, or requiring instrumental assistance.	129
Retained Placenta or Membranes	15
Ruptured Perineum	192
Rise of Temperature	18
Eclampsia	3
Premature Birth	14
Miscarriage and Abortion	10
Inflammation of Eyes	107
Other causes relating to Mother	63
Other causes relating to Child	48
Total	822

Contact with Infectious Disease.

Six notifications of contact with infectious disease were received from midwives during 1935. Three on account of having been in contact with Pemphigus Neonatorum, and three in connection with other infection. In each case the midwife was disinfected at the Mode Wheel Disinfecting Station.

Investigation of Stillbirths.

Sixty-two stillbirths were notified by midwives in domiciliary practice during 1936. Each case was thoroughly investigated and the cause found to be as follows :—

8 Abnormal presentation.
12 Premature Birth.
1 Precipitate Labour.
15 Macerated Fœtus (two born before arrival of help, one with previous history of stillbirth).
1 Hydramnios.
1 Ante-partum Hæmorrhage.
1 Illness of mother (Pneumonia).
6 Deformities of Fœtus.
8 Difficult Labour (one contacted pelvis).
2 Prolonged Labour.
1 Strangulation by Umbilical Cord.
4 Toxæmia of Pregnancy (three Albuminura).
2 Cause unknown.

In eight of these cases there had been no Ante-natal supervision.

Investigation of Infant Death.

Twenty-five Notifications of Infant Death were received during 1936, the causes being as follows :—

7 Prematurity and Debility.
2 Prematurity and Cardiac Failure.
2 Congenital Malformation.
5 Congenital Heart Disease.
1 Injury from Parturition.
1 Asphyxia Pallida.
3 Convulsions.
1 Operation on mother for Ovarian Cyst during pregnancy.
1 Mother sustained severe shock from burns during pregnancy.
2 Died before Medical Assistance could be procured.

Inquests were held in connection with the two cases where the baby died before medical assistance could be procured. In both cases a verdict of " Death from natural causes " was returned.

In five of the cases where infant death occurred, the mother had received no Ante-natal supervision.

Artificial Feeding of Infants.

During the year 1936, 34 Notifications of the substitution of Artificial Feeding for Breast Feeding were received, the reasons given being as follows :—

In 11 cases artificial feeding was ordered by the doctor in attendance.
15 mothers had insufficient secretion of breast milk.
2 mothers were returning to work.
1 mother had suffered from extensive burns on the breast.
1 mother refused to feed her baby on account of cracked nipples.
1 infant was removed to hospital.
In the remaining three cases the babies were partially breast-fed.

Public Health (Notification of Puerperal Fever and Puerperal Pyrexia Regulations), 1926 and 1928.

PUERPERAL FEVER. Ten cases were notified during 1936.

5 cases occured in the domiciliary practice of midwives.
2 cases occurred in Hope Hospital.
1 case occurred in a Private Nursing Home.
2 were cases of abortion, where a doctor was called in emergency.

PUERPERAL PYREXIA. Eighteen cases were notified during the year.

10 cases occurred in Hope Hospital.
4 cases occurred in the domiciliary practice of midwives.
3 cases occurred in the practice of doctors (all were removed to hospital).
1 case occurred in the district practice of St. Mary's Hospital and was removed to hospital).

All cases were thoroughly investigated by the Assistant Inspector of Midwives and every precaution taken to prevent the spread of the disease. This includes the temporary suspension of the midwife and disinfection of her person, bag and clothing, and the careful supervision of other cases then being attended by her.

As the Regulations require prompt notification of any rise of temperature, special attention, and, if necessary, the services of a consultant are quickly available.

Bacteriological examinations of lochia and blood are made on request at the Municipal Laboratory.

Public Health (Ophthalmia Neonatorum) Regulations, 1926 and 1928.

There has been a considerable decrease in the number of cases of Ophthalmia Neonatorum notified during the year 1936, the number notified being 17.

8 cases occurred in Hope Hospital.
8 cases occurred in the practices of midwives.
1 case occurred in a Nursing Home outside Salford, and was later notified by a Salford doctor.

In eight cases both eyes were affected and in nine cases one eye was affected. Six cases were classed as severe and 11 as slight. Sixteen cases recovered without injury to sight and one was still receiving treatment at the end of the year.

All notified cases of Ophthalmia Neonatorum are visited by the Assistant Inspector of Midwives, and where necessary the case is referred to the District Nursing Association, who supply a nurse to carry out treatment under doctors' orders.

During 1936, 107 cases of discharging eyes of infants were notified by midwives in accordance with the Central Midwives Board Rules. All cases were visited regularly until the condition had cleared, and where necessary, instruction as to the method of treatment was given.

Infectious Diseases Notification Act, 1887.

Pemphigus Neonatorum.

Thirteen cases of Pemphigus Neonatorum were notified during 1936. Two cases occurred in the practices of midwives, one case occurred in a private nursing home, five cases were notified from Hope Hospital, and five cases were notified from Clinics (four of these were born in Hope Hospital). The age of onset varied from one day to four weeks. Every precaution was taken to prevent the spread of the disease. Three cases proved fatal.

Assisted Midwifery Scheme.

During the year 1936, 89 applications for assistance under the above Scheme were received. Assistance was granted in 75 cases, and in 14 cases the application was refused. In 12 cases the income was in excess of the scale allowance and in two cases the accommodation was unsatisfactory.

Each case is investigated by the Assistant Inspector of Midwives and no assistance is granted under the Scheme in cases where the home accommodation is unsuitable for confinement to take place there, or in cases where the mother has had a previous difficult confinement necessitating hospital treatment, such cases being urged to seek admission to Hospital.

In 61 cases compensation of 10s. per patient was paid to midwives in respect of booked cases where the patient had subsequently been sent to Hospital on medical advice.

Midwives Act, 1918.

Under the Midwives Act, 1918, section 14 (1), the Local Authority is authorised to pay the fees of registered medical practitioners called in by midwives in cases of emergency, and, where possible, recover the fee from the patient or her husband. This ensures that no lying-in woman need be without the services of a qualified medical attendant, however poor her circumstances may be. The doctors' accounts are checked and paid in accordance with the Scale of Fees prescribed by the Ministry of Health.

Nursing Homes Registration Act, 1927.

Two Nursing Homes have been registered during the year and four closed. There are now seven Nursing Homes registered in the City; five of these are Maternity Homes, and two are Medical and Surgical Homes. These homes are inspected regularly by the Senior Medical Officer, assisted by the Assistant Inspector of Midwives.

SECTION VIII.

Hope Hospital.

General.

The outstanding events of the year 1936 have been the completion of the equipment and the putting into active service of the wards and departments in the new buildings. It has been very interesting to observe the immediate response, on the part of the patients and staff, to the improved conditions. It has been obvious to everyone who has spent some time working in the Hospital under the old conditions, that the space, convenience and improved nursing facilities provided in the new part of the Hospital has had an immediate effect on the psychological reactions of patients and staff. Instead of putting up with and making the best of wards and departments which were both dingy and, in many cases, inadequate, it was, within a few weeks of opening, quite remarkable to observe a new spirit of enthusiasm on the part of the staff and their pride in the new wards, and also to note the obvious satisfaction of the patients with their brighter and more convenient quarters.

The effect of brighter, more hygienic and better equipped wards has also been noticed in connection with the reconstruction and improvement accomplished in certain wards of the older parts of the Hospital. For instance, the new Maternity Department in A. Pavilion, with its Ante-natal ward on B.2, has amply repaid already the expenditure undertaken.

The Children's Ward, in the renovated B.3 Ward, is also a great improvement. These reconstructions are encouraging, as showing what can be done, at no excessive cost, with wards which were until quite recently, unhygienic and in many ways both inconvenient and dull and depressing in appearance.

In no department has the improvement been more obvious than in the surgical operating unit. This building, containing two theatres, with spacious corridors, large anæsthetic rooms, sterilising rooms and surgeons' and nurses' dressing rooms, has permitted a much greater volume of work to be accomplished under conditions of vastly greater convenience and comfort. It is now perfectly easy to have two surgeons operating simultaneously in the unit without the work of the one theatre interfering with or hindering in any way the work of the second.

The new wards and departments were put into use in the following sequence :—

March	X-Ray Department.
	New Central Kitchen.
April.....	Operating Theatres.
	Male and Female Surgical Wards.
May	Female Medical and Orthopædic Wards.
September	The remaining Wards in the new Buildings.

It had been hoped that after the opening of the new wards it would be possible to set aside one double ward or two single wards in the older part of the Hospital for the purpose of finding better accommodation for the out-patient department and for the Ante-natal clinics. However, within a week of the redistribution of patients, it became obvious that this was impossible, as the demands on the bed accommodation were greater than had been reckoned on. So that it became necessary to use B.1 Ward for female patients. (This ward had tentatively been left empty, with a view to adapting it for use for the Ante-natal clinics). At the same time serious shortage of accommodation for male patients showed itself. To get over this difficulty arrangements were made for the transfer of all the male phthisical cases to appropriate wards in Ladywell Sanatorium, thus freeing an extra ward for ordinary male patients. This transfer was accomplished in October.

The Maternity Department was reopened in the reconstructed A. Pavilion early in 1936. This Block contains 70 beds, arranged in three units on separate floors of A. Pavilion. Two of these ward units are " aseptic " units and one is used for " potentially septic " cases. On the adjacent pavilion, in B.2 Ward (28 beds), accommodation is provided for cases requiring in-patient treatment during the Ante-natal period. The occasional cases of puerperal pyrexia will be transferred to special wards in pavilions well away from the maternity wards and isolated there.

In order to provide room for the sick children taken over from the Municipal Babies' Hospital in April, a new children's unit was opened on G.1 Ward. In October these children were transferred to G.3 Ward—G.1 Ward being required for male medical patients.

By the middle of November all of the rearrangements of patients had been completed. There were now 1,220 beds and cots in the whole Hospital and patients were grouped as follows :—

A. Male Adults.	B. Female Adults.
N.E.1 Surgical.	N.W.1 Surgical.
N.E.2 Surgical.	N.W.2 Gynæcological.
N.E.3 Surgical.	N.W.3 Surgical.
N.E.4 Medical.	N.W.4 Medical.
G.1 Medical.	H.1 Medical.
F.1 Medical.	E.1 Chronic.
F.2 Chronic.	C.1 Chronic.
F.3 Orthopædic.	C.2 L Chronic.
E.2 Chronic.	C.2 X V.D.
E.2 X V.D.	B.1 Medical.

C. Infants and Children.

H.2 Girls (6—14 years).

H.3 Boys (6—14 years).

G.2 Infants (up to 18 months).

G.3 Children (18 months to 3 years).

B.3 Children (3 to 5 years).

B.1 (Dayroom)—Tonsils and Adenoids (boys).

H.1 (Dayroom)—Tonsils and Adenoids (girls).

D. Maternity Department.

A.1 "Potentially Septic" maternity.

A.2 Aseptic Maternity.

A.3 Aseptic Maternity.

B.2 Ante-natal.

E. Mental.

E.3 Male Mental.

C.3 Female Mental.

C.2 R. Female Mental.

As the wards in the new pavilions each possess four small two-bed wards, there is now accommodation suitable for the reception of paying patients. A charge of three guineas per week is made to Salford residents and of four guineas a week to patients from outside the Salford area. In the Maternity Department there is accommodation for a certain number of paying patients, for whom a charge of four guineas to Salford residents and of five guineas to others is made.

It soon became evident that there exists a demand for this kind of accommodation, as during the latter part of the year 114 such patients were admitted (36 maternity and 78 medical or surgical cases).

It will be noted from the statistical part of this report that the number of new admissions in 1936 reached 9,500—a figure which exceeds our previous maximum by more than 1,100. The various special departments dealing with out-patients, electro-medical treatment, X-Ray and massage all show considerably increased activity, and the work of the department of Pathology also shows a big increase. The facilities for the special investigations of disease are now very complete, and these facilities are also at the disposal of the Medical Practitioners in Salford, and are largely taken advantage of by them to assist in the diagnosis and treatment of their patients.

While there is much cause for satisfaction in the new Hospital wards and departments, it is nevertheless necessary to draw attention to the need for improvement in certain other directions.

The Out-patient Department is still housed in quarters which are cramped and inconvenient. The same remark applies to the massage and electro-therapeutic department. In the case of the latter department, plans had been

made towards the end of 1936 for their transfer to large rooms in the new buildings, where ample space can be provided for all the activities of this department, including massage, radiant heat, diathermy and remedial gymnastics.

The ante-natal and post-natal clinics also require much more space and better facilities than are provided in the present quarters.

While improvements have been made in some of the wards for sick children, much work is still required to make the accommodation satisfactory. The wards in which the older children are accommodated (boys in H.3 ward, girls in H.2 ward) are in an almost chronic state of overcrowding. The infants' and children's ward units are scattered rather widely among the adult wards. The existing wards cannot be arranged so as to give proper facilities for isolation or quarantine or for (what is very desirable) the breaking up into smaller groups of the children in their ward units.

The condition and arrangement of the existing mental wards have been unfavourably criticised by Inspectors of the Board of Control time and again for many years past. The Committee have done all in their power to improve these wards and their amenities, but we have found that it is impracticable to provide in the existing accommodation such conditions of housing and recreation and treatment as are necessary and desirable. The Commissioners have always recognised that the nursing care and supervision of the patients have been excellent, and their criticisms are directed solely against the arrangements of the wards and the impossibility of segregating acute, short-term cases from the chronic mental cases, and from the mentally deficient, both adults and children. During 1936, some of the imbecile children were taken over by the Lancashire Mental Deficiency Acts Committee and transferred to other Institutions. In this respect, therefore, some improvement has been accomplished, but conditions generally in the male and in the female mental wards still come very far short of the desirable.

A fully qualified Assistant Dispenser was appointed in March, owing to the increased volume and importance of the work in the dispensary.

In April a pupil-radiographer was attached to the X-Ray department.

The Committee purchased in December fifteen wireless sets for the wards, and these were installed in time to add to the enjoyment of the Christmas festivities.

Owing to the lack of room for extra clinics in the existing out-patient department, it was found necessary to look for accommodation elsewhere for the out-patient work of the Visiting General Surgeon, of the Gynæcologist, and of the Aural Surgeons. These clinics were established, therefore, in the rooms in the new buildings which were originally designed as reception and admission rooms. These clinics are each held once weekly at present and the arrangements made have proved practical and satisfactory.

Medical Staff.

The only change in the Visiting Staff during 1936 was the resignation of the Gynæcologist and Obstetrician, Dr. J. W. A. Hunter. His resignation was accepted with regret. The Committee expressed their appreciation of his valued services during the past six years, and appointed him Honorary Visiting Obstetrician and Gynæcologist.

Mr. T. F. Todd, F.R.C.S., Eng., M.C.O.G., was appointed to this post and took up his duties in May.

Dr. Flint, Resident Obstetric Officer, left in May, and was succeeded by Dr. Stanley Henderson, M.B., Ch.B. (L'pool), M.C.O.G., M.M.S.A.

Mr. Brown was appointed a member of the Panel of Examiners for the State Examination for Nurses.

A very useful pamphlet on "Urine-Testing for Nurses," compiled by Dr. MacKay, was put into print by the Committee for the use of the Staff.

The appointment of an additional (sixth) Assistant Medical Officer, was sanctioned by the Committee, and he began duty in November.

The changes among the staff of Assistant Medical Officers were as follows :—

On the Staff in January, 1936.	Appointed during 1936.
Dr. Judson (left May).	Dr. Lee (May).
Dr. Mattison.	Dr. Bird (August).
Dr. Watt (left November).	Dr. Freedman (November).
Dr. Tetlow.	Dr. Ward (November).
Dr. Hardie (left August).	

Medical Wards.

Staff.—Dr. Langley, Visiting Physician.

Dr. Mackay, Whole-time Physician.

Dr. Elsie Porter (Visiting) assisting in special investigation into Pneumonia.

The Assistant Medical Officers allocated to the Medical Wards.

Miss Rogers (Visiting) Electrocardiologist.

General Work.—The number of patients requiring special investigation and treatment appears to be increasing and, except for the months of August, September and October, the wards were always full, indeed, they were occasionally overcrowded. The overcrowding, however, was never so acute as in previous years because of the allocation of more wards for acute medical cases. As wards became available it was decided to earmark particular wards for the investigation and treatment of particular groups of diseases. This specialisation tends to increase efficiency in working, to economise time and to make the training of student nurses more thorough.

The treatment of acute lobar pneumonia with homologous anti-pneumococcus serum is a routine now that the principles have been properly worked out. A report of certain aspects of this work in the Hospital was published in the *Quarterly Journal of Medicine* for April, 1936.

Papers by Dr. E. Davis, late Assistant Medical Officer, on the value of intravenous charcoal therapy were published in the *British Journal of Dermatology and Syphilis*, vol. 48, October, 1936, and *The Lancet*, vol. 2, November, 1936. All the clinical work of this research was done in the Hospital.

Pulmonary Tuberculosis.—During the year, the Tuberculosis Ward (G.3) was closed and all the patients were transferred to Ladywell Sanatorium. Dr. E. N. Ramsbottom, Senior Tuberculosis Officer, continued to pay his weekly visits to the Hospital. Cases of suspected pulmonary tuberculosis were quickly brought to his notice and arrangements made to enable these patients to continue under his observation at the City clinic on discharge from Hospital. Fifty-seven cases of pulmonary tuberculosis (Form A) were diagnosed and notified in 1936. They were disposed of in accordance with arrangements made by Dr. Ramsbottom. Special pulmonary cases attending the tuberculosis clinic and under the care of Dr. Ramsbottom were admitted to Hospital as occasion arose for radiological examination after injection of lipiodol, or for bronchoscopy or surgical treatment.

The Electrocardiograph as an aid to diagnosis in the investigation of cardiac muscle function continued to be helpful. Reports on 542 electrocardiograms were made during the year—45 reports more than in 1935.

Medical Out-Patient Department.—This department continued to be busy. New patients numbered 602. Of these 418 (an increase of 174 on 1935) were sent by their private medical attendants for help in diagnosis, for investigation or for treatment of a specialised kind, *e.g.*, massage and electrical treatment. The remaining 184 came to the department for continued observation and treatment after discharge from in-patient treatment. There were 2,097 return attendances by old patients—496 more than last year.

As foreshadowed in the report for 1935 a Diabetic Clinic for out-patients was opened in January, 1936, and it functioned satisfactorily during the year.

Diphtheria and Scarlet Fever Immunisation.

Nursing Staff.

Number tested	77
Number found to be immune	38
Number susceptible to—	
Diphtheria	36
Scarlet Fever	1
Diphtheria and Scarlet Fever	2

The susceptible nurses were immunised if they remained on the staff of the Hospital.

Diphtheria Immunisation of Children between the ages of 2 and 14.

Number tested	452
Number immune	394
Number susceptible	58

Forty-one children were completely immunised while in Hospital. Fourteen were discharged with instructions to have the course of immunisation completed at the out-patient Department. Three were transferred to other institutions before the course was completed.

Surgical Wards.

Staff:—Mr. Brown, Whole-time Surgeon.

Mr. Simmons, Visiting General Surgeon.

Dr. Hunter, Visiting Gynæcologist. (Until May).

Mr. Todd, Visiting Gynæcologist. (Since May).

Mr. Milner, Visiting Orthopædic Surgeon.

Mr. Smalley and Mr. Mercer, Visiting Aural Surgeons.

Dr. Flint, R.O.O., Operative Gynæcology and General Surgery.

Dr. Henderson, R.O.O., Operative Gynæcology and General Surgery. (Since May).

Drs. Ghosh, Faulkner-Hill, Sykes and Nicholson, Visiting Anæsthetists.

The Assistant Medical Officers allocated to the Surgical Wards.

Surgical Department.—The most significant feature of the year, as regards the surgical department, was the opening of the new Operating Theatres. The first operation was appropriately performed by Dr. Giles, the Medical Superintendent, on the 15th April, 1936, and since that date the Theatre has been in full use and has given the greatest satisfaction.

The improvement in the conditions under which the operating work has been carried out, has been of marked benefit to the surgical and nursing staff in the Theatre, and has made their duties less arduous and burdensome. The use of two Operating Theatres, often in action simultaneously, has led to greater efficiency and expedition in dealing with the increased volume of work during the year. It has also been possible to arrange for a special theatre nursing staff to deal with emergency operations during the night, and thus to avoid the necessity of calling on members of the staff who have already done a full day's work to assist with these cases.

The wards in the new extension for surgical cases have proved entirely satisfactory in every way, although at busy times there has occasionally been difficulty in finding accommodation for female surgical cases.

The total number of operations for the year shows an increase of 539 cases, which is largely accounted for by the increase in the number of cases operated on for tonsils and adenoids. There are ten regular operating sessions each week, and in addition special sessions for urgent emergency cases.

The operations were distributed as follows :—

Dr. Giles, Medical Superintendent	1
Mr. Brown, Deputy Medical Superintendent	550
Dr. Henderson, R.O.O.	172
Dr. Flint, R.O.O.	123
Assistant Medical Officers	131

Visiting Staff :—

Mr. Simmons (General Surgeon	283
Mr. Milner (Orthopædic Surgeon)	111
Mr. Todd (Gynæcologist)	190
Mr. Smalley (Ear, Nose and Throat)	498
Mr. Mercer (Do.)	580
Surgeons from Radium Institute	10
Dentists	17
Other Visiting Surgeons	25
Total	2,691

The anæsthetics were as follows :—

General. (Chloroform, Ether, Gas and Oxygen)	2,227
Spinal	383
Local Infiltration	69
Others (Twilight, Evipan, etc.)	12
Total	2,691

Anæsthetics were administered by :—

Assistant Medical Officers	1,143
Dr. Ghosh	642
Visiting Anæsthetists	835
Surgeons	71

It is to be noted that there has been a large increase in the number of anæsthetics administered by visiting anæsthetists. This has been necessary owing to the increased number of operating sessions, as well as operations. The anæsthetics in the orthopædic, visiting gynæcological, and ear, nose and throat lists are all administered by visiting anæsthetists now, in addition to those of the two general surgical sessions.

The general surgery has been undertaken by Mr. Brown and Mr. Simmons. Arrangements were made during the year for Mr. Simmons to undertake an out-patient clinic, where he would have an opportunity of seeing new cases and following up old cases.

All emergency work in general surgery has been carried out either by Mr. Brown or by Dr. Flint, and later by Dr. Henderson, who followed Dr. Flint.

During the year arrangements were made whereby a School Dentist from the Public Health Department was available for dental work in the Hospital. This has proved a great help and an increasing use is being made of this service.

Ear, Nose and Throat Department.—The work in this Department has been carried out by Mr. Smalley and Mr. Mercer. In addition to emergency work, there were each week one consultation session, two operating sessions for children's tonsils and adenoids, and one or two adult operating sessions. In spite of this large amount of work, there was still a substantial waiting list of children at the end of the year.

Orthopaedic Department.—The orthopædic work has continued under the direction of Mr. Milner. With the transfer of surgical cases to the new extensions, the adult female orthopædic cases were accommodated in one of the new wards. It was found, however, that the male patients were more satisfactorily housed in the old ward—F.3—and no transfer was carried out in their case. The Plaster Room on G.1 Ward was found to be rather small for the demands on it, and it is hoped in the near future to provide better accommodation elsewhere in the Hospital.

The figures for the year were :—

In-Patients :

In Hospital on 1st January, 1936	43
New Admissions	374
Discharges	340
In Hospital on 31st December, 1936	56
Deaths	21

Out-Patients :

Out-Patient attendances	1,481
No. of patients treated in Plaster Room	912
Anæsthetics administered in Plaster Room	93

Gynaecological Department.—Mr. Todd succeeded Dr. Hunter as Visiting Gynæcologist in May. With the help of Dr. Flint, and later of Dr. Henderson, he has had a very busy year. There have been two regular operating sessions each week, and although the total number of operations show a decrease compared with the previous year, there has been a definite increase in the number of major operations and a large decrease in minor operations, *e.g.*, curettage of uterus. In addition to his work in the Gynæcological Department, Dr. Henderson has been very active in emergency general surgery.

Surgical Out-Patient Department.—The scope of this Department has been enlarged in order to allow the visiting staff to take a share in its work. In addition to the three routine surgical sessions taken by Mr. Brown, there are special sessions—for Mr. Simmons, Mr. Todd, and the Ear, Nose and Throat Surgeons. These special sessions make the visiting staff available for consultant work, and allow them an opportunity of following up their cases where necessary. The total number of out-patients who attended, has increased. Casualties have increased from 252 to 300. There is an increasing tendency to make use of the Hospital Out-Patient Department for such cases.

In addition to the casualty attendances there were 3,488 general surgical out-patients seen in the Department during the year.

OPERATIONS DURING 1936.

1.	Mouth (including teeth)	33
2.	Abscess (various)	129
3.	Gynæcological	414
4.	Tonsils and Adenoids	999
5.	Bones and Joints	135
6.	Stomach and Intestines	133
7.	Liver and Gall Bladder	53
8.	Appendix	226
9.	Hernia	128
10.	Genito-Urinary	123
11.	Hæmorrhoids	46
12.	Breast	13
13.	Ear	36
14.	Empyema	33
15.	Nose	21
16.	Eye	4
17.	Brain	4
18.	Thyroid	8
19.	Various	97
20.	Cystoscopic Examinations	56
		2,691

Maternity Department.

Staff.—Dr. Hunter, followed in May by Mr. Todd, Visiting Obstetrician.
Dr. Flint, followed in May by Dr. Henderson, R.O.O.
The Senior Assistant Medical Officer.

The amount of work carried out in the Maternity Wards and the Ante-natal Clinics, again shows an increase on previous years. There have been changes in the wards and clinic premises in which the work has been carried out.

Early in the year the maternity unit was transferred from its temporary home in the New Extension to the newly appointed A. block. Later in the year B.2 was taken over for use as an ante-natal ward instead of A.2, need for the latter being found in the increasing number of deliveries. A.3 acts as the main lying-in ward for clean cases. A.2 with less beds is a clean lying-in ward, which also caters for paying patients. A.1 accommodates emergency admissions and abortions, and takes cases from A.3 and A.2 which exhibit morbidity. Cases of pregnancy with venereal disease can be accommodated in C.2.X., but are transferred to A.1 for delivery.

ANTE-NATAL WORK.—Three clinics per week are now held. Seedley Maternity Home was closed early in the year, and paying patients were provided for in the Hospital. A special ante-natal clinic is held for paying patients on Tuesday mornings. On Wednesday morning the general clinic is held.

It became convenient owing to the large attendance to draw up a scheme to co-operate with the other clinics in the City. Cases temporarily transferred to these, normally are referred back to the Hospital clinic at the 36th week.

The Thursday afternoon clinic is reserved for examination of new patients. A Post-natal clinic is held once a week in the same building.

Number of attendances at Ante-natal Clinics	5,354
Number of individual mothers attending Clinics	1,259
Number of individual mothers attending Post-natal Clinic	241
Number of cases admitted to the Ante-natal Ward	279

MATERNITY DEPARTMENT.

Number of cases delivered	1,021
,, ,, ,, booked	92.5%
,, ,, ,, non-clinic	7.5%
Number of abortions admitted	200

MATERNAL DEATHS.

ANALYSIS.

1. Cæsarian Section for Placenta Prævia.
2. Abortion, Puerperal Septic Infection.
3. Tuberculosis and Cardiac Disease. Premature Birth.
4. Retained Placenta.
5. Abortion. Septic.
6. Pneumonia. (Transferred from Ladywell Sanatorium).
7. Septic Abortion.
8. Ruptured Uterus. Delivered of Hydrocephalic Fœtus at home.
9. Carcinoma Colon.
10. Eclampsia.
11. Pneumonia. Incarcerated Gravid Uterus, with retention of urine.
12. Cæsarian Section. Acute Dilation of Stomach.
13. Hyperemesis Gravidarum.
14. Puerperal Insanity. Pyelitis.

Number of Still Births	60	5.8%
Number of Neonatal Deaths	37	3.6%

Number of Cæsarian Sections	38
(*a*) Classical	13
(*b*) Lower Segment	20
(*c*) Latzko	3
(*d*) Cæsarian Hysterectomy	2
	38

CAESARIAN SECTION UNDERTAKEN FOR :—

Contracted Pelvis	24
Placenta Prævia	4
Prolapsed Cord	3
Breech (Primigravida)	1
Cardiac Disease	2
Fibroids Cæsarian Hysterectomy	1
,, ,, Myomectomy	1
Ruptured Uterus	1
Congenital absence of abdominal muscles and acute Hydramnios	1
	38

Maternal Deaths 2

(Case 1). Collapsed after operation for central placenta prævia.

(Case 2). Died 4 days after operation from acute dilation of the stomach.

Abdominal Hysterectomy and Sterilisation 3

Puerperal Fever 2

(Case 1). Septic Abortion.

(Case 2). Case transferred from Ladywell Sanatorium with pneumonia.

Both Non-clinic Patients.

Puerperal Pyrexia 10

Forceps delivery 74

Rate 7.25%

Breech deliveries	46
Twin deliveries	11
Face	3
Brow	1
Shoulder-delivered as breech	3
Internal (Podalic) Version	5
Prolapsed Cord	8
Accidental Hæmorrhage	9
Placenta Prævia	8
Manual removal of Placenta	3
" Failed Forceps " admitted	7
Other failed deliveries admitted	7
Craniotomy	4
Decapitation	1

Episiotomy	2
Perineal repairs	80
Ruptured Uterus	3
Eclampsia	4

Surgical Inductions.

(*a*) Artificial rupture of membranes	35
(*b*) By stomach tube	10
(*c*) By laminaria tent	2

Children's Wards.

Staff.—Dr. Catherine Chisholm, C.B.E., Visiting Physician for Diseases of Children.

The Assistant Medical Officers allocated to the Children's Wards.

The arrangement of the Children's Wards has been commented on elsewhere in this report.

The mortality in the Infants' Ward was 17.3 per cent.—a decrease of 1 per cent. on last year. This figure is a good criterion of the success of the work in this department.

Treatment of Cancer.

The arrangements with the Christie Cancer Hospital and Holt Radium Institute were continued during 1936.

The number of cases treated was as follows :—

	1936.	1935.
Patients examined at the Radium Institute	46	33
,, to whom Radium was applied here	20	21
,, transferred temporarily as in-patients to the Christie Hospital	8	3
,, treated as out-patients at the Christie Hospital. (Deep X-Ray)	12	14

V.D. Cases.

Staff.—Dr. Marinkovitch (of the Public Health Department), V.D. Medical Officer for Salford.

The Assistant Medical Officers allocated to these Wards.

Provision for the in-patient treatment of male cases was arranged for in E. Pavilion, and an eight-bed ward (E.2X.) was opened there in April. Up to the end of 1936, thirty-seven patients had been admitted for treatment.

Forty-eight patients were admitted to the Female V.D. Ward during the year.

Dr. Marinkovitch's specialised experience in general skin diseases has been extremely useful and he has acted as Consulting Dermatologist to the Hospital.

X-Ray Department.

Staff.—Dr. Ghosh, Visiting Radiologist.

The new X-Ray Department was put into use in March. It is situated in rooms specially designed for the purpose and is equipped with a complete new installation. The two transformers, one four-valve and one two-valve, are situated in the basement underneath the operating rooms. The apparatus includes:—couch for radiography with one overhead tube and one under the table ; upright radiographic stand for stomach, gall bladder work, etc. ; special stand for rapid photography of the chest ; sinus stand ; and dental stand. The whole of the apparatus is shock-proof.

A mobile X-Ray apparatus has also been installed, so that radiography of cases can be done in the various wards, when it is not advisable to move the patients to the X-Ray room.

The Department contains an excellent and roomy dark-room, a viewing room and radiologist's office, and waiting rooms with dressing cubicles.

The work of this very important Department has been greatly facilitated by the provision of larger and more spacious quarters and of the most modern apparatus.

Laboratory for Investigations in Pathology.

Staff.—Dr. Crawford, City Pathologist.
Dr. Stent, Assistant Pathologist.
Three Technicians.

The work of this Department has proceeded with greater facility since the appointment of an additional technician on the staff, and the Pathologists have been freed from a certain amount of the routine examinations.

The special investigation into the results of the serum treatment of pneumonia has continued throughout the year. The results of this investigation, in which the part played by the Laboratory is a very important one, have been published in *The Quarterly Journal of Medicine* and *The Lancet*.

Maintenance.

During the year Wards B.3 and G.3 have been converted for the nursing of sick children. B.3 Ward has been thoroughly reconditioned, including new lighting and re-flooring. Stencils of suitable subjects for children have been incorporated with the decoration of the ward. A glass and wood partition has been installed in the Day Room to give additional isolation accommodation.

G.3 Ward has been similarly reconditioned, excepting that wall-plastering, re-flooring and relighting have not been carried out.

B.2 Ward has also been re-floored and redecorated. The lighting has also been reconditioned. On the Wards B.2 and B.3 a new type of Night Light has been introduced.

A new electric power main has been run in the cellar and a number of the old wards have now a power supply. This enables the heavier type of electrical equipment, such as the portable X-Ray Unit, to be used.

A new steam sterilising unit was installed on Ward B.3.

The work of installing new equipment in the Operating Theatres, X-Ray Department, New Wards and Kitchen was completed. The units were brought into full occupation and use.

Lifts.—New and larger Passenger Lifts serving C. and E. Blocks have been installed. It is now possible to convey a full-sized bed with patient in these lifts.

Ante-natal Clinic.—This clinic has been accommodated in the Receiving Block attached to the Old People's Homes. The rooms were decorated and necessary services completed.

New Dispensary.—The new Dispensary and Store were completed and occupied. The old Dispensary rooms were converted into offices for the Assistant Matrons.

Painting Works.—The staff of Painters has been fully occupied during the year. In addition to the wards already mentioned, the wards and corridors of N.W.3 and N.W.4, the Theatres and Bedrooms in the Nurses' Home have all been redecorated.

Gardens and Grounds.—The work of this particular branch has been carried out very well. New lawns have been laid and the gardens maintained as bright and colourful as possible. A sunken garden has been commenced in the grounds of the Nurses' Home.

STATISTICS.

1. General.

	1935.	1936.
In Hospital on 1st January	831	885
New Admissions	8,371	9,504
Live Births	782	961
Totals	9,984	11,350
Discharges during the year	8,079	9,291
Deaths	1,020	1,122
Remaining under treatment at the end of the year	885	937
Totals	9,984	11,350
Mortality	10.2%	10.2%

	1935.	1936.
Average cost per patient per week	58s. 10d.	58s. 10d.

2. X-Ray Department.

	1935.	1936.
Number of Patients	3,631	4,128

3. Department of Massage and Electro-Therapeutics.

(*a*) *Massage.*

	1935.	1936.
Number of In-Patients	419	406
Number of Out-Patients	299	351
Totals	718	757
Number of Treatments :—		
In-Patients	8,584	9,168
Out-Patients	6,098	6,103
Totals	14,682	15,271

	1935.	1936.
(*b*) *Electro-Therapeutics.*		
In-Patients	89	130
Out-Patients	121	191
Totals	210	321
Number of Treatments :—		
In-Patients	2,755	3,716
Out-Patients	3,913	3,904
Totals	6,668	7,620
(*c*) *Ultra-Violet Radiation.*		
Number of Treatments	971	1,354

3. Out-Patients' Department.

Dressings and Treatments	15,014	18,380
Consultations, etc	2,642	3,028
Totals	17,656	21,408

4. Department of Pathology.

Autopsies Conducted	165	143
Specimens Examined	9,335	12,262

5. Mental Wards.

	1935.			1936.		
	Male.	Female.	Total.	Male.	Female.	Total.
Patients under treatment on 1st January	63	96	159	64	85	149
Patients transferred from County Mental Hospital	—	—	—	—	—	—
Patients admitted during the year	133	119	252	150	124	274
Totals	196	215	411	214	209	423

Discharges.

	Male.		Female.		Total.	
	1935.	1936.	1935.	1936.	1935.	1936.
Released c/o Friends	41	51	33	36	77	89
Transfers to Mental Hospital	36	38	33	24	69	62
Released to other Wards	29	11	29	24	58	35
Released to other Institutions	2	4	3	12	5	16
Discharged during the year	108	104	101	96	209	200
Deaths during the year	30	21	26	30	56	51

TABLE SHOWING INCREASE IN WORK OF THE HOSPITAL SINCE 1914.

Year.	Admissions.	Births.	Discharges.	Deaths.	Average Daily No. of Patients.	Operations.
1914	2,728	12	2,135	591	749	149
1915	1,632	4	1,393	491	514	160
1916	1,330	—	941	353	439	175
1917	1,263	3	1,058	335	407	145
1918	1,402	16	1,104	391	303	144
1919	1,559	7	1,056	348	339	107
1920	2,516	64	1,736	451	689	163
1921	3,335	227	2,899	617	858	332
1922	3,720	263	3,272	745	888	395
1923	4,463	250	3,749	815	870	430
1924	4,416	182	3,742	922	811	523
1925	5,315	293	4,292	1,015	868	802
1926	5,471	366	4,839	903	943	882
1927	5,801	409	5,125	1,003	943	960
1928	6,430	559	5,545	926	960	1,076
1929	7,477	674	6,936	1,141	918	1,403
1930	7,583	685	7,150	1,038	969	1,807
1931	7,963	812	7,762	1,093	919	2,004
1932	8,521	843	8,156	1,052	961	2,186
1933	8,031	615	7,572	1,084	940	2,201
1934	7,893	745	7,548	1,081	940	2,080
1935	8,371	782	8,079	1,020	912	2,152
1936	9,504	961	9,291	1,122	977	2,691